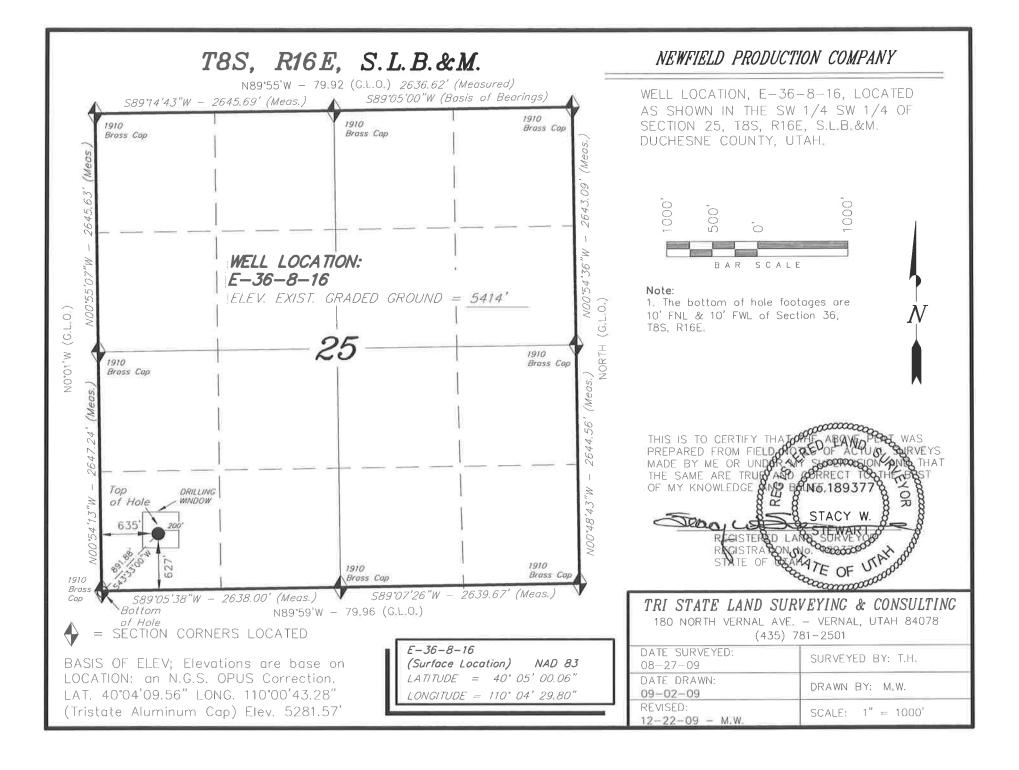
		JRCES IING		FORI							
APPLI	CATION FOR P	ERMIT TO DRILL	-				1. WELL NAME and NUMBER Greater Monument Butte E-36-8-16				
2. TYPE OF WORK  DRILL NEW WELL (	REENTER P&A	WELL ( DEEPE	N WELL			3. FIELD OR WILDCAT MONUMENT BUTTE					
4. TYPE OF WELL Oil We	5. UNIT or COMMU	5. UNIT or COMMUNITIZATION AGREEMENT NAME GMBU (GRRV)									
6. NAME OF OPERATOR		7. OPERATOR PHON	<b>IE</b> 435 646-4825								
8. ADDRESS OF OPERATOR	3 Box 3630 , Myt	con, UT, 84052				9. OPERATOR E-MA	<b>IL</b> rozier@newfield.com				
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) UTU-67170		I1. MINERAL OWNE FEDERAL (🗐 IND		ате 💮	FEE (	12. SURFACE OWNE	ERSHIP DIAN ( STATE (	FEE (			
13. NAME OF SURFACE OWNER (if box 12	= 'fee')					14. SURFACE OWNE	R PHONE (if box 1	.2 = 'fee')			
15. ADDRESS OF SURFACE OWNER (if box	12 = 'fee')					16. SURFACE OWN	R E-MAIL (if box 1	12 = 'fee')			
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')		18. INTEND TO COM		DUCTIO	N FROM	19. SLANT					
(II DOX 12 = INDIAN )		YES (Submit C	commingling Ap	oplication)	) NO 📵	VERTICAL DIR	ECTIONAL 📵 HO	ORIZONTAL (			
20. LOCATION OF WELL	FOO	TAGES	QTR-QTR	ł 📗	SECTION	TOWNSHIP	RANGE	MERIDIAN			
LOCATION AT SURFACE	627 FSL	635 FWL	SWSW		25	8.0 S	16.0 E	S			
Top of Uppermost Producing Zone	197 FSL	229 FWL	SWSW		25	8.0 S	16.0 E	S			
At Total Depth	10 FNL	10 FWL	NWNW		36	8.0 S	16.0 E	S			
21. COUNTY  DUCHESNE		22. DISTANCE TO N	EAREST LEAS	E LINE (	Feet)	23. NUMBER OF ACRES IN DRILLING UNIT					
		25. DISTANCE TO NI (Applied For Drilling			IE POOL	<b>26. PROPOSED DEPTH</b> MD: 6456 TVD: 6456					
27. ELEVATION - GROUND LEVEL 5414	2	28. BOND NUMBER	WYB000493			29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE 43-7478					
		ΑΊ	TTACHMENT	гs		3					
VERIFY THE FOLLOWING	ARE ATTACHE	D IN ACCORDAN	CE WITH TH	HE UTAI	H OIL AND	GAS CONSERVATI	ON GENERAL RU	ILES			
WELL PLAT OR MAP PREPARED BY	LICENSED SURV	EYOR OR ENGINEER	R	COMPLETE DRILLING PLAN							
AFFIDAVIT OF STATUS OF SURFACE	OWNER AGREE	MENT (IF FEE SURF	ACE)	FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER							
☑️ DIRECTIONAL SURVEY PLAN (IF DI DRILLED)		TOPOGR	RAPHICAL M	IAP							
NAME Mandie Crozier	Гесh		РН	IONE 435 646-4825							
SIGNATURE			EM	IAIL mcrozier@newfield.	com						
<b>API NUMBER ASSIGNED</b> 43013502180000		APPROVAL			3	nagyill					
						Permit Manager					

API Well No: 43013502180000 Received: 1/12/2010

	Proposed Hole, Casing, and Cement									
String	Hole Size	Casing Size	Top (MD)	Bottom (MD)						
Prod	7.875	5.5	0	6456						
Pipe	Grade	Length	Weight							
	Grade J-55 LT&C	6456	15.5							

API Well No: 43013502180000 Received: 1/12/2010

	Proposed Hole, Casing, and Cement									
String	Hole Size	Casing Size	Top (MD)	Bottom (MD)						
Surf	12.25	8.625	0	300		Τ				
Pipe	Grade	Length	Weight			Τ				
	Grade J-55 ST&C	300	24.0			Τ				
						Т				





Project: USGS Myton SW (UT) Site: SECTION 36 T8S, R16E

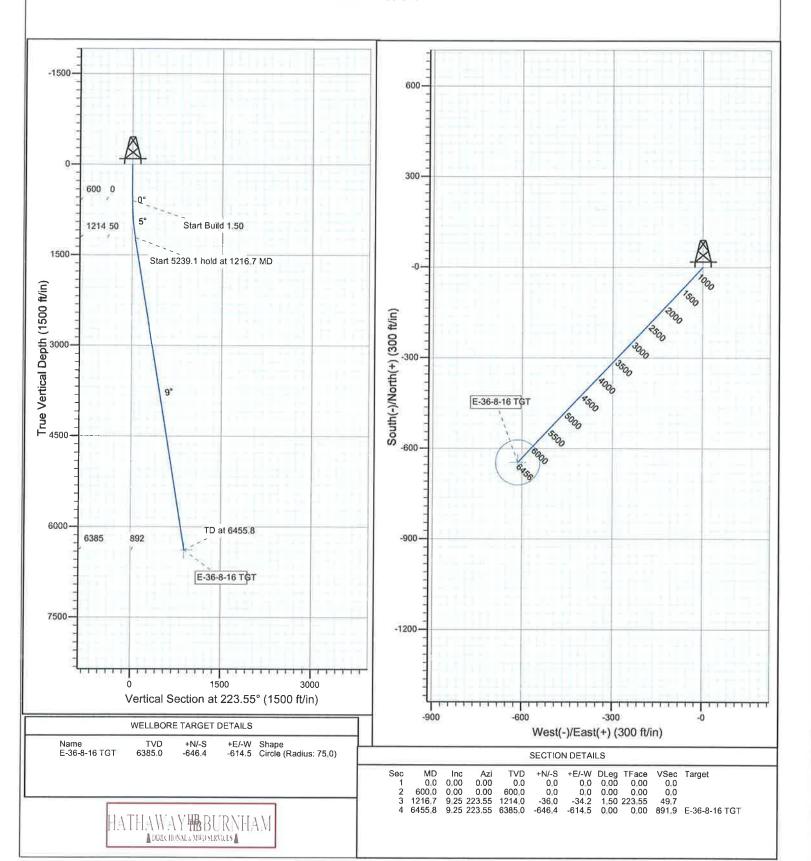
Well: E-36-8-16 Wellbore: Wellbore #1 Design: Design #1

KOP @ 600' DOGLEG RATE 1.5 DEG/100 TARGET RADIUS IS 75'



Azimuths to True North Magnetic North: 11.52°

Magnetic Field Strength: 52485.9snT Dip Angle: 65.88° Date: 2009/10/14 Model: IGRF200510





# **NEWFIELD EXPLORATION**

USGS Myton SW (UT) SECTION 36 T8S, R16E E-36-8-16

Wellbore #1

Plan: Design #1

# **Standard Planning Report**

30 November, 2009





#### **HATHAWAY BURNHAM**

Planning Report



Database: Company: Project: Site:

EDM 2003,21 Single User Db **NEWFIELD EXPLORATION** USGS Myton SW (UT) SECTION 36 T8S, R16E

E-36-8-16 Well: Wellbore: Wellbore #1 Design #1 Design:

Local Co-ordinate Reference: TVD Reference:

**MD Reference:** North Reference:

Survey Calculation Method:

Well E-36-8-16

E-36-8-16 @ 5426.0ft (NEWFIELD RIG) E-36-8-16 @ 5426.0ft (NEWFIELD RIG)

Minimum Curvature

USGS Myton SW (UT), DUCHESNE COUNTY, UT, USA Project

Map System: Geo Datum: Map Zone:

US State Plane 1983 North American Datum 1983 System Datum:

Mean Sea Level

Using geodetic scale factor

Site SECTION 36 T8S, R16E, SEC 26 T8S, R16E

Site Position: From:

Northing:

7,202,697.00ft

Latitude: Longitude:

40° 5' 3,401 N

**Position Uncertainty:** 

Lat/Long

Utah Central Zone

Easting: Slot Radius: 2,045,250.00ft

Grid Convergence:

110° 3' 10.915 W 0.93°

E-36-8-16, SHL LAT: 40 05 00.06, LONG: -110 04 29.80 Well

0.0 ft

**Well Position** 

+N/-S +E/-W

-338.9 ft -6,131.6 ft Northing: Easting:

7,202,260.51 ft 2,039,125.19 ft Latitude: Longitude:

40° 5' 0.060 N 110° 4' 29.800 W

**Position Uncertainty** 

0.0 ft

Wellhead Elevation:

5,426.0 ft

Ground Level:

65.88

5,414.0 ft

Wellbore

Wellbore #1

Design #1

**Model Name Magnetics** 

Sample Date IGRF200510 2009/10/14

Declination (°) 11.52 Dip Angle (°)

Field Strength (nT)

52,486

Design

Audit Notes:

Version:

Phase:

**PROTOTYPE** 

Tie On Depth:

0.0

Vertical Section:

Depth From (TVD) (ft)

0.0

+N/-S (ft) 0.0

+E/-W (ft) 0.0

Direction (°) 223.55

Plan Section:	s									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
600.0	0.00	0.00	600.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,216.7	9.25	223.55	1,214.0	-36.0	-34.2	1,50	1.50	0.00	223.55	
6,455.8	9.25	223.55	6,385.0	-646.4	-614.5	0.00	0.00	0.00	0.00	E-36-8-16 TGT

Page 2



#### **HATHAWAY BURNHAM**

Planning Report



Database: Company: Project: Site: EDM 2003.21 Single User Db NEWFIELD EXPLORATION USGS Myton SW (UT)

SECTION 36 T8S, R16E

Well: Wellbore: Design: E-36-8-16 Wellbore #1 Design #1 Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Well E-36-8-16

E-36-8-16 @ 5426.0ft (NEWFIELD RIG) E-36-8-16 @ 5426.0ft (NEWFIELD RIG)

True

Minimum Curvature

Design:	Design #1								
Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	1.50	223.55	700.0	-0.9	-0.9	1.3	1.50	1.50	0.00
800.0	3.00	223.55	799.9	-3.8	-3.6	5.2	1.50	1.50	0.00
900.0	4.50	223.55	899.7	-8.5	-8.1	11.8	1.50	1.50	0.00
1,000.0	6.00	223.55	999.3	-15.2	-14.4	20.9	1,50	1,50	0.00
1,100.0	7.50	223.55	1,098.6	-23.7	-22.5	32.7	1,50	1.50	0.00
1,200.0	9.00	223.55	1,197.5	-34.1	-32.4	47.0	1,50	1.50	0.00
1,216.7	9.25	223.55	1,214.0	-36.0	-34.2	49.7	1,50	1.50	0.00
1,300.0	9.25	223.55	1,296.2	-45.7	-43.5	63.1	0,00	0.00	0.00
1,400.0 1,500.0 1,600.0 1,700.0 1,800.0	9.25 9.25 9.25 9.25 9.25 9.25	223.55 223.55 223.55 223.55 223.55	1,394.9 1,493.6 1,592.3 1,691.0 1,789.7	-57.4 -69.0 -80.7 -92.3 -104.0	-54.5 -65.6 -76.7 -87.8 -98.8	79.1 95.2 111.3 127.4 143.4	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
1,900.0 2,000.0 2,100.0 2,200.0 2,300.0	9.25 9.25 9.25 9.25 9.25 9.25	223.55 223.55 223.55 223.55 223.55	1,888.4 1,987.1 2,085.8 2,184.5 2,283.2	-115.6 -127.3 -138.9 -150.6 -162.2	-109.9 -121.0 -132.1 -143.1 -154.2	159.5 175.6 191.7 207.7 223.8	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
2,400.0 2,500.0 2,600.0 2,700.0 2,800.0	9.25 9.25 9.25 9.25 9.25 9.25	223,55 223,55 223,55 223,55 223,55	2,381.9 2,480.6 2,579.3 2,678.0 2,776.7	-173.9 -185.5 -197.2 -208.8 -220.5	-165.3 -176.4 -187.4 -198.5 -209.6	239.9 256.0 272.0 288.1 304.2	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
2,900.0	9.25	223.55	2,875.4	-232.1	-220.7	320.3	0.00	0.00	0.00
3,000.0	9.25	223.55	2,974.1	-243.8	-231.7	336.3	0.00	0.00	0.00
3,100.0	9.25	223.55	3,072.8	-255.4	-242.8	352.4	0.00	0.00	0.00
3,200.0	9.25	223.55	3,171.5	-267.1	-253.9	368.5	0.00	0.00	0.00
3,300.0	9.25	223.55	3,270.2	-278.7	-265.0	384.6	0.00	0.00	0.00
3,400.0	9.25	223.55	3,368.9	-290.4	-276.0	400.6	0.00	0.00	0.00
3,500.0	9.25	223.55	3,467.6	-302.0	-287.1	416.7	0.00	0.00	0.00
3,600.0	9.25	223.55	3,566.3	-313.7	-298.2	432.8	0.00	0.00	0.00
3,700.0	9.25	223.55	3,665.0	-325.3	-309.3	448.9	0.00	0.00	0.00
3,800.0	9.25	223.55	3,763.7	-337.0	-320.3	464.9	0.00	0.00	0.00
3,900.0	9,25	223,55	3,862.4	-348.6	-331.4	481.0	0.00	0.00	0.00
4,000.0	9,25	223,55	3,961.1	-360.3	-342.5	497.1	0.00	0.00	0.00
4,100.0	9,25	223,55	4,059.8	-371.9	-353.6	513.2	0.00	0.00	0.00
4,200.0	9,25	223,55	4,158.5	-383.6	-364.6	529.3	0.00	0.00	0.00
4,300.0	9,25	223,55	4,257.2	-395.2	-375.7	545.3	0.00	0.00	0.00
4,400.0	9.25	223.55	4,355.9	-406.9	-386.8	561.4	0.00	0,00	0.00
4,500.0	9.25	223.55	4,454.6	-418.5	-397.9	577.5	0.00	0.00	0.00
4,600.0	9.25	223.55	4,553.3	-430.2	-408.9	593.6	0.00	0.00	0.00
4,700.0	9.25	223.55	4,652.0	-441.8	-420.0	609.6	0.00	0,00	0.00
4,800.0	9.25	223.55	4,750.7	-453.5	-431.1	625.7	0.00	0,00	0.00
4,900.0	9.25	223.55	4,849.4	-465.1	-442.2	641.8	0.00	0.00	0.00
5,000.0	9.25	223.55	4,948.1	-476.8	-453.3	657.9	0.00	0.00	0.00
5,100.0	9.25	223.55	5,046.8	-488.4	-464.3	673.9	0.00	0.00	0.00
5,200.0	9.25	223.55	5,145.5	-500.1	-475.4	690.0	0.00	0.00	0.00



#### **HATHAWAY BURNHAM**

Planning Report



Database: Company: Project: Site: EDM 2003.21 Single User Db NEWFIELD EXPLORATION USGS Myton SW (UT) SECTION 36 T8S, R16E

Well: E-36-8-16
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference: TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well E-36-8-16

E-36-8-16 @ 5426.0ft (NEWFIELD RIG) E-36-8-16 @ 5426.0ft (NEWFIELD RIG)

True

Minimum Curvature

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,300.0	9.25	223.55	5,244.2	-511.7	-486.5	706.1	0.00	0.00	0.00
5,400.0	9.25	223.55	5,342.9	-523.4	-497.6	722.2	0.00	0.00	0.00
5,500.0	9.25	223.55	5,441.6	-535.0	-508.6	738.2	0.00	0.00	0.00
5,600.0	9.25	223.55	5,540.3	-546.7	-519.7	754.3	0.00	0.00	0.00
5,700.0	9.25	223.55	5,639.0	-558.4	-530.8	770.4	0.00	0.00	0.00
5,800.0	9.25	223.55	5,737.7	-570.0	-541.9	786.5	0.00	0.00	0.00
5,900.0	9.25	223.55	5,836.4	-581.7	-552.9	802.5	0.00	0.00	0.00
6,000.0	9.25	223.55	5,935.1	-593.3	-564.0	818.6	0.00	0.00	0.00
6,100.0	9.25	223.55	6,033.8	-605.0	-575.1	834.7	0.00	0.00	0.00
6,200.0	9.25	223.55	6,132.5	-616.6	-586.2	850.8	0.00	0.00	0.00
6,300.0	9.25	223.55	6,231.2	-628.3	-597.2	866.8	0.00	0.00	0.00
6,400.0	9.25	223.55	6,329.9	-639.9	-608.3	882.9	0.00	0.00	0.00
6,455.8	9.25	223.55	6,385.0	-646.4	-614.5	891.9	0.00	0.00	

#### NEWFIELD PRODUCTION COMPANY GREATER MONUMENT BUTTE E-36-8-16 AT SURFACE: SW/SW SECTION 25, T8S, R16E DUCHESNE COUNTY, UTAH

#### TEN POINT DRILLING PROGRAM

#### I. GEOLOGIC SURFACE FORMATION:

Uinta formation of Upper Eocene Age

#### 2. ESTIMATED TOPS OF IMPORTANT GEOLOGIC MARKERS:

Uinta 0-1695' Green River 1695' Wasatch 6456'

#### 3. ESTIMATED DEPTHS OF ANTICIPATED WATER, OIL, GAS OR MINERALS:

Green River Formation 1695' - 6456' - Oil

Fresh water may be encountered in the Uinta Formation, but would not be expected below about 350'. All water shows and water bearing geologic units shall be reported to the geologic and engineering staff of the Vernal Office prior to running the next string of casing or before plugging orders are requested. All water shows must be reported within one (1) business day after being encountered.

All usable (<10,000 PPM TDS) water and prospectively valuable minerals (as described by BLM at onsite) encountered during drilling will be recorded by depth and adequately protected. This information shall be reported to the Vernal Office.

Detected water flows shall be sampled, analyzed, and reported to the geologic & engineering staff of the Vernal Office. The office may request additional water samples for further analysis. Usage of the State of Utah form *Report of Water Encountered* is acceptable, but not required.

The following information is requested for water shows and samples where applicable:

Location & Sampled Interval Date Sampled Flow Rate Temperature Hardness pH

Water Classification (State of Utah)

Dissolved Calcium (Ca) (mg/l)

Dissolved Sodium (Na) (mg/l)

Dissolved Magnesium (Mg) (mg/l)

Dissolved Bicarbonate (NaHCO<sub>3</sub>) (mg/l)

Dissolved Sulfate (SO<sub>4</sub>) (mg/l)

Dissolved Total Solids (TDS) (mg/l)

Ten Point Well Program & Thirteen Point Well Program Page 2 of 4

#### 4. PROPOSED CASING PROGRAM

a. Casing Design: Greater Monument Butte E-36-8-16

	Interval		Meight	Condo	Counting	Design Factors			
Size	Тор	Bottom	Weight	Grade Coupling	Coupling	Burst	Collapse	Tension	
Surface casing	-	000	24.0	1.55	CTO	2,950	1,370	244,000	
8-5/8"	0'	0' 300' 24.0 J-55 STC	SIC	17.53	14.35	33.89			
Prod casing		0.4501	45.5	1.55	1.70	4,810	4,040	217,000	
5-1/2"	0	6,456'	15.5	J-55	LTC	2.34	1.97	2.17	

#### Assumptions:

- 1) Surface casing max anticipated surface press (MASP) = Frac gradient gas gradient
- 2) Prod casing MASP (production mode) = Pore pressure gas gradient
- 3) All collapse calculations assume fully evacuated casing w/ gas gradient
- 4) All tension calculations assume air weight

Frac gradient at surface casing shoe = 13.0 ppg
Pore pressure at surface casing shoe = 8.33 ppg
Pore pressure at prod casing shoe = 8.33 ppg
Gas gradient = 0.115 psi/ft

All casing shall be new or, if used, inspected and tested. Used casing shall meet or exceed API standards for new casing.

All casing strings shall have a minimum of 1 (one) centralizer on each of the bottom three (3) joints.

b. Cementing Design: Greater Monument Butte E-36-8-16

Rew Last Live S	F.00	Description	Sacks	ОН	Weight	Yield	
Job	Fill Description		ft <sup>3</sup>	Excess*	(ppg)	(ft³/sk)	
Out an assiss	300'	Class G w/ 2% CaCl	138	30%	15.8	1.17	
Surface casing	300	Class G W/ 2% Cacl	161	30 /0	10.0	1.17	
Prod casing	4,456'	Prem Lite II w/ 10% gel + 3%	308	30%	11.0	3.26	
Lead	4,456	KCI	1004	3070	11.50	3,20	
Prod casing	2,000'	50/50 Poz w/ 2% gel + 3%	363	30%	14.3	1.24	
Tail	2,000	KCI	451	3070	14.0	1.27	

<sup>\*</sup>Actual volume pumped will be 15% over the caliper log

- Compressive strength of lead cement: 1800 psi @ 24 hours, 2250 psi @ 72 hours
- Compressive strength of tail cement: 2500 psi @ 24 hours

Hole Sizes: A 12-1/4" hole will be drilled for the 8-5/8" surface casing. A 7-7/8" hole will be drilled for the 5-1/2" production casing.

The 8-5/8" surface casing shall in all cases be cemented back to surface. In the event that during the primary surface cementing operation the cement does not circulate to surface, or if the cement level should fall back more than 8 feet from surface, then a remedial surface cementing operation shall be performed to insure adequate isolation and stabilization of the surface casing.

## 5. MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:

The operator's minimum specifications for pressure control equipment are as follows:

Ten Point Well Program & Thirteen Point Well Program Page 3 of 4

An 8" Double Ram Hydraulic unit with a closing unit will be utilized. Function test of BOP's will be check daily.

Refer to Exhibit C for a diagram of BOP equipment that will be used on this well.

#### 6. TYPE AND CHARACTERISTICS OF THE PROPOSED CIRCULATION MUDS:

From surface to ±350 feet will be drilled with an air/mist system. The air rig is equipped with a 6 ½" blooie line that is straight run and securely anchored. The blooie line is used with a discharge less than 100 ft from the wellbore in order to minimize the well pad size. The blooie line is not equipped with an automatic igniter or continuous pilot light and the compressor is located less than 100 ft from the well bore due to the low possibility of combustion with the air dust mixture. The trailer mounted compressor (capacity of 2000 CFM) has a safety shut-off valve which is located 15 feet from the air rig. A truck with 70 bbls of water is on stand by to be used as kill fluid, if necessary. From about ±350 feet to TD, a fresh water system will be utilized. Clay inhibition and hole stability will be achieved with a KCl substitute additive. This additive will be identified in the APD and reviewed to determine if the reserve pit shall be lined. This fresh water system will typically contain Total Dissolved Solids (TDS) of less than 3000 PPM. Anticipated mud weight is 8.4 lbs/gal. If necessary to control formation fluids or pressure, the system will be weighted with the addition of bentonite gel, and if pressure conditions warrant, with barite

No chromate additives will be used in the mud system on Federal and/or Indian lands without prior BLM approval to ensure adequate protection of fresh aquifers.

No chemicals subject to reporting under SARA Title III in an amount equal to or greater than 10,000 pounds will be used, produced, stored, transported, or disposed of annually in association with the drilling, testing, or completing of this well. Furthermore, no extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities, will be used, produced, stored, transported, or disposed of in association with the drilling, testing, or completing of this well.

Hazardous substances specifically listed by the EPA as a hazardous waste or demonstrating a characteristic of a hazardous waste will not be used in drilling, testing, or completion operations.

Newfield Production will **visually** monitor pit levels and flow from the well during drilling operations.

#### 7. AUXILIARY SAFETY EQUIPMENT TO BE USED:

Auxiliary safety equipment will be a Kelly Cock, bit float, and a TIW valve with drill pipe threads.

## 8. TESTING, LOGGING AND CORING PROGRAMS:

The logging program will consist of a Dual Induction, Gamma Ray and Caliper log from TD to base of surface casing @ 300' +/-, and a Compensated Neutron-Formation Density Log from TD to 3500' +-. A cement bond log will be run from PBTD to cement top. No drill stem testing or coring is planned for this well.

#### 9. ANTICIPATED ABNORMAL PRESSURE OR TEMPERATURE:

No abnormal temperatures or pressures are anticipated. No hydrogen sulfide has been encountered or is known to exist from previous drilling in the area at this depth. Maximum anticipated

#### 'APIWellNo:43013502180000'

Ten Point Well Program & Thirteen Point Well Program Page 4 of 4

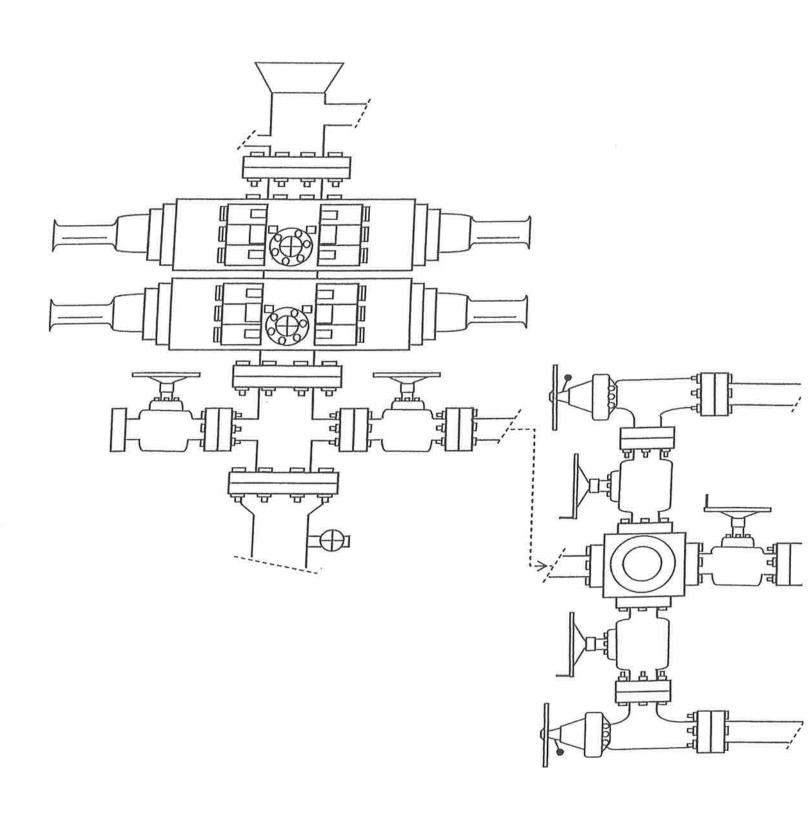
bottomhole pressure will approximately equal total depth in feet multiplied by a  $0.433~\mathrm{psi/foot}$  gradient.

## 10. ANTICIPATED STARTING DATE AND DURATION OF THE OPERATIONS:

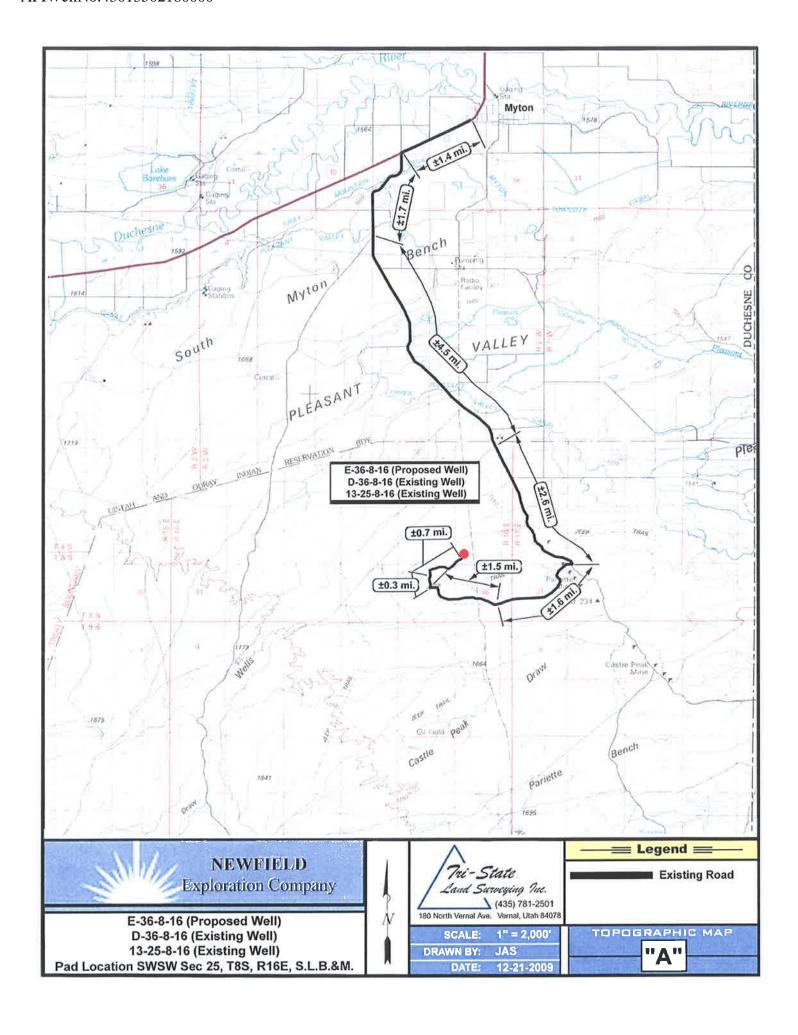
It is anticipated that the drilling operations will commence the second quarter of 2010, and take approximately seven (7) days from spud to rig release.

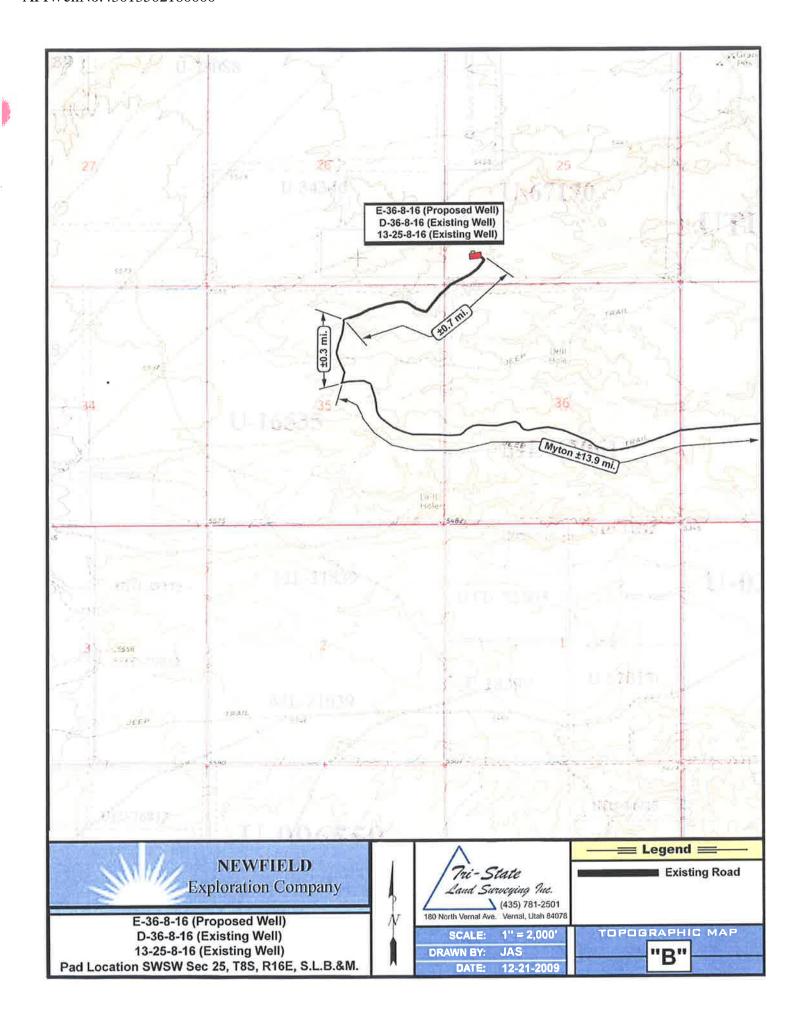
## 2-M SYSTEM

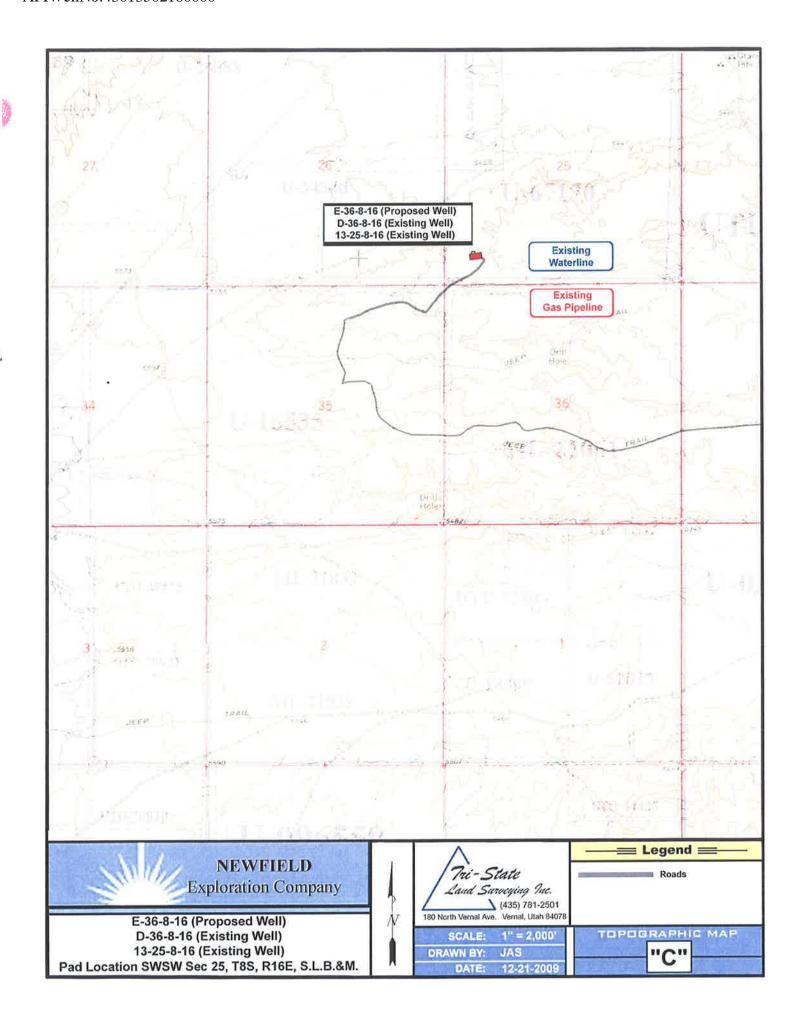
**Blowout Prevention Equipment Systems** 

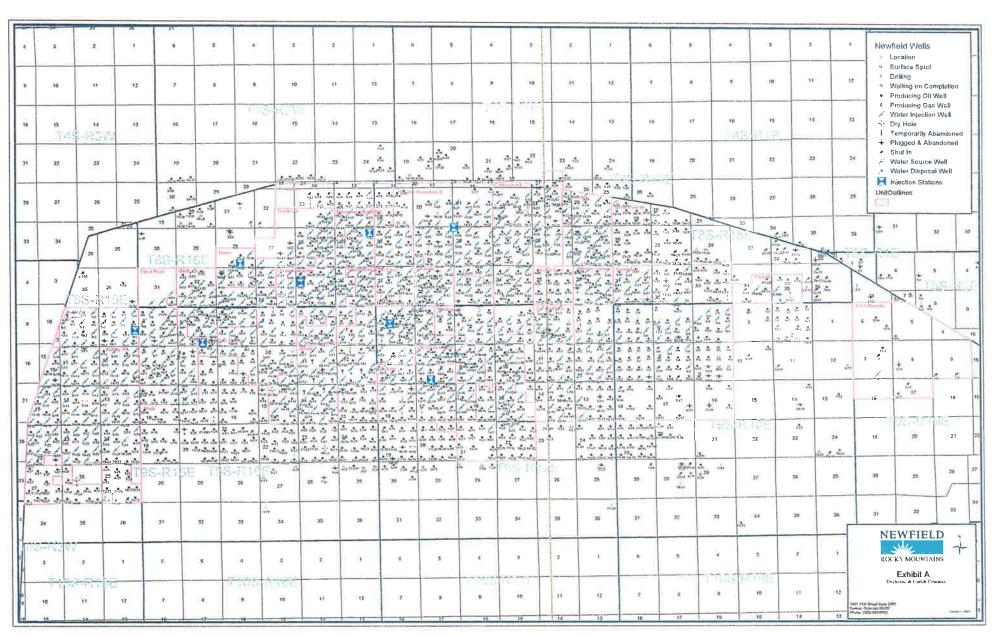


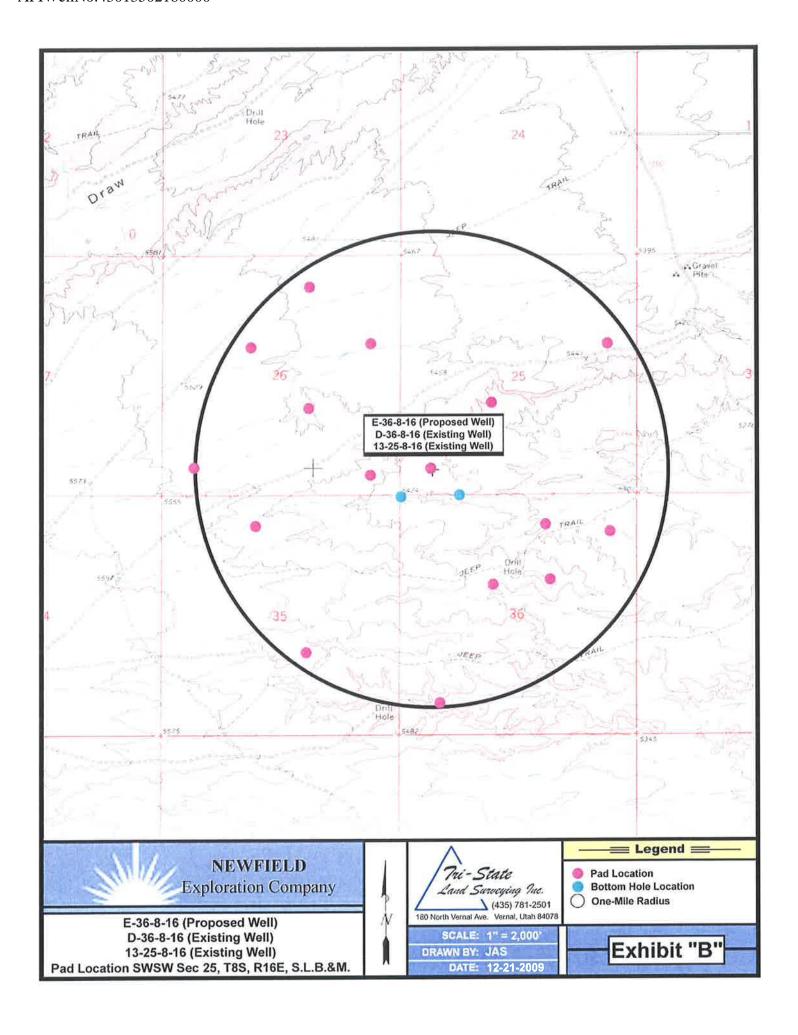
**EXHIBIT C** 











## NEWFIELD PRODUCTION COMPANY GREATER MONUMENT BUTTE E-36-8-16 AT SURFACE: SW/SW SECTION 25, T8S, R16E DUCHESNE COUNTY, UTAH

#### **ONSHORE ORDER NO. 1**

#### **MULTI-POINT SURFACE USE & OPERATIONS PLAN**

#### 1. EXISTING ROADS

See attached Topographic Map "A"

To reach Newfield Production Company well location site Greater Monument Butte E-36-8-16 located in the SW 1/4 SW 1/4 Section 25, T8S, R16E, Duchesne County, Utah:

Proceed southwesterly out of Myton, Utah along Highway 40 - 1.4 miles  $\pm$  to the junction of this highway and UT State Hwy 53; proceed southeasterly -8.8 miles  $\pm$  to it's junction with an existing dirt road to the southwest; proceed southwesterly -1.6 miles  $\pm$  to it's junction with an existing road to the west; proceed westerly -1.5 miles  $\pm$  to it's junction with an existing road to the north; proceed northerly -0.3 miles  $\pm$  to it's junction with an existing road to the northeast; proceed northeasterly -0.7 miles  $\pm$  to the access road to the existing -13-25-8-16 well location.

The aforementioned dirt oil field service roads and other roads in the vicinity are constructed out of existing native materials that are prevalent to the existing area they are located in and range from clays to a sandy-clay shale material.

The roads for access during the drilling, completion and production phase will be maintained at the standards required by the State of Utah, or other controlling agencies. This maintenance will consist of some minor grader work for smoothing road surfaces and for snow removal. Any necessary fill material for repair will be purchase and hauled from private sources.

#### 2. PLANNED ACCESS ROAD

There is no proposed access road for this location. The proposed well will be drilled off of the existing 13-25-8-16 well pad. See attached **Topographic Map "B"**.

There will be **no** culverts required along this access road. There will be barrow ditches and turnouts as needed along this road.

There are no fences encountered along this proposed road. There will be no new gates or cattle guards required.

All construction material for this access road will be borrowed material accumulated during construction of the access road.

#### 3. <u>LOCATION OF EXISTING WELLS</u>

Refer to Exhibit "B".

#### 4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES

There are no existing facilities that will be used by this well.

It is anticipated that this well will be a producing oil well.

There are no existing facilities that will be used by this well.

Upon construction of a tank battery, the well pad will be surrounded by a dike of sufficient capacity to contain at minimum 110% of the largest tank volume within the facility battery.

Tank batteries will be built to State specifications.

All permanent (on site for six (6) months or longer) structures, constructed or installed (including pumping units), will be painted a flat, non-reflective, earth tone color to match one of the standard environmental colors, as determined by the Rocky Mountain Five State Interagency Committee. All facilities will be painted within six months of installation.

#### 5. LOCATION AND TYPE OF WATER SUPPLY

Newfield Production will transport water by truck from nearest water source as determined by a Newfield representative for the purpose of drilling the above mentioned well. The available water sources are as follows:

Johnson Water District Water Right: 43-7478

Neil Moon Pond

Water Right: 43-11787

Maurice Harvey Pond Water Right: 47-1358

Newfield Collector Well

Water Right: 41-3530 (A30414DV, contracted with the Duchesne County Conservancy District).

Please refer to the Monument Butte Field SOP. See Exhibit "A".

#### 6. SOURCE OF CONSTRUCTION MATERIALS

All construction material for this location shall be borrowed material accumulated during construction of the location site and access road.

A mineral material application is not required for this location.

#### 7. METHODS FOR HANDLING WASTE DISPOSAL

A small reserve pit (90' x 40' x 8' deep, or less) will be constructed from native soil and clay materials. The reserve pit will receive the processed drill cutting (wet sand, shale & rock) removed from the wellbore. Any drilling fluids, which do accumulate in the pit as a result of shale-shaker carryover, cleaning of the sand trap, etc., will be promptly reclaimed. All drilling fluids will be fresh water based, typically containing Total Dissolved Solids of less than 3000 PPM. No potassium chloride, chromates, trash, debris, nor any other substance deemed hazardous will be placed in this pit. Therefore, it is proposed that no synthetic liner be required in the reserve pit. However, if upon constructing the pit there is insufficient fine clay and silt present, a liner will be used for the purpose of reducing water loss through percolation.

Newfield requests approval that a flare pit not be constructed or utilized on this location.

A portable toilet will be provided for human waste.

A trash basket will be provided for garbage (trash) and hauled away to an approved disposal site at the completion of the drilling activities.

Immediately upon first production, all produced water will be confined to a steel storage tank. If the production water meets quality guidelines, it is transported to the Ashley, Monument Butte, Jonah, and Beluga water injection facilities by company or contract trucks. Subsequently, the produced water is injected into approved Class II wells to enhance Newfield's secondary recovery project.

Water not meeting quality criteria, is disposed at Newfield's Pariette #4 disposal well (Sec. 7, T9S R19E), State of Utah approved surface disposal facilities, or Federally approved surface disposal facilities.

#### 8. ANCILLARY FACILITIES

There are no ancillary facilities planned for at the present time and none foreseen in the near future.

#### 9. WELL SITE LAYOUT

See attached Location Layout Sheet.

#### **Fencing Requirements**

All pits will be fenced according to the following minimum standards:

- a) A 39-inch net wire shall be used with at least one strand of barbed wire on top of the net.
- b) The net wire shall be no more than two (2) inches above the ground. The barbed wire shall be three (3) inches above the net wire. Total height of the fence shall be at least forty-two (42) inches.
- c) Corner posts shall be centered and/or braced in such a manner to keep tight at all times
- d) Standard steel, wood or pipe posts shall be used between the corner braces. Maximum distance between any two posts shall be no greater than sixteen (16) feet.
- e) All wire shall be stretched, by using a stretching device, before it is attached to the corner posts.

The reserve pit fencing will be on three (3) sides during drilling operations and on the fourth side when the rig moves off location. Pits will be fenced and maintained until cleanup.

Existing fences to be crossed by the access road will be braced and tied off before cutting so as to prevent slacking in the wire. The opening shall be closed temporarily as necessary during construction to prevent the escape of livestock, and upon completion of construction the fence shall be repaired to BLM specifications.

#### 10. PLANS FOR RESTORATION OF SURFACE:

#### a) Producing Location

Immediately upon well completion, the location and surrounding area will be cleared of all unused tubing, equipment, debris, material, trash and junk not required for production.

The reserve pit and that portion of the location not needed for production facilities/operations will be recontoured to the approximated natural contours. Weather permitting, the reserve pit will be reclaimed within one hundred twenty (120) days from the date of well completion. Before any dirt work takes place, the reserve pit must have all fluids and hydrocarbons removed.

#### b) Dry Hole Abandoned Location

At such time as the well is plugged and abandoned, the operator shall submit a subsequent report of abandonment and the State of Utah will attach the appropriate surface rehabilitation conditions of approval.

11. SURFACE OWNERSHIP - Bureau of Land Management.

#### 12. OTHER ADDITIONAL INFORMATION

Newfield Production Company is responsible for informing all persons in the area who are associated with this project that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during construction, Newfield is to immediately stop work that might further disturb such materials and contact the Authorized Officer.

- a) Newfield Production will control noxious weeds along rights-of-way for roads, pipelines, well sites or other applicable facilities. On State administered land it is required that a Pesticide Use Proposal shall be submitted and given approval prior to the application of herbicides or other possible hazardous chemicals.
- b) Drilling rigs and/or equipment used during drilling operations on this well site will not be stacked or stored on State Lands after the conclusion of drilling operations or at any other time without State authorization. However, if State authorization is obtained, it is only a temporary measure to allow time to make arrangements for permanent storage on commercial facilities.

The Archaeological Resource Survey and Paleontological Resource Survey for this area are attached. MOAC Report #09-208, 12/9/09. Paleontological Resource Survey prepared by, Wade E. Miller, 10/31/09. See attached report cover pages, Exhibit "D".

#### **Additional Surface Stipulations**

All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws and regulations, Onshore Oil and Gas Orders, the approved plan of operations and any applicable Notice to Lessees. A copy of these conditions will be furnished to the field representative to ensure compliance.

#### **Hazardous Material Declaration**

Newfield Production Company guarantees that during the drilling and completion of the Greater Monument Butte E-36-8-16, Newfield will not use, produce, store, transport or dispose 10,000# annually of any of the hazardous chemicals contained in the Environmental Protection Agency's consolidated list of chemicals subject to reporting under Title III Superfund Amendments and Reauthorization Act (SARA) of 1986. Newfield also guarantees that during the drilling and completion of the Greater Monument Butte E-36-8-16, Newfield will use, produce, store, transport or dispose less than the threshold planning quantity (T.P.Q.) of any extremely hazardous substances as defined in 40 CFR 355.

A complete copy of the approved APD, if applicable, shall be on location during the construction of the location and drilling activities.

Newfield Production Company or a contractor employed by Newfield Production shall contact the State office at (801) 722-3417, 48 hours prior to construction activities.

The State office shall be notified upon site completion prior to moving on the drilling rig.

#### 13. LESSEE'S OR OPERATOR'S REPRENSENTATIVE AND CERTIFICATION:

#### Representative

Name: Tim Eaton

Address: Newfield Production Company

Route 3, Box 3630 Myton, UT 84052

Telephone: (435) 646-3721

#### Certification

Please be advised that Newfield Production Company is considered to be the operator of well #E-36-8-16, Duchesne County, Utah and is responsible under the terms and conditions of the lease for the operations conducted upon the leased lands. Bond coverage is provided by, Federal Bond #WYB000493.

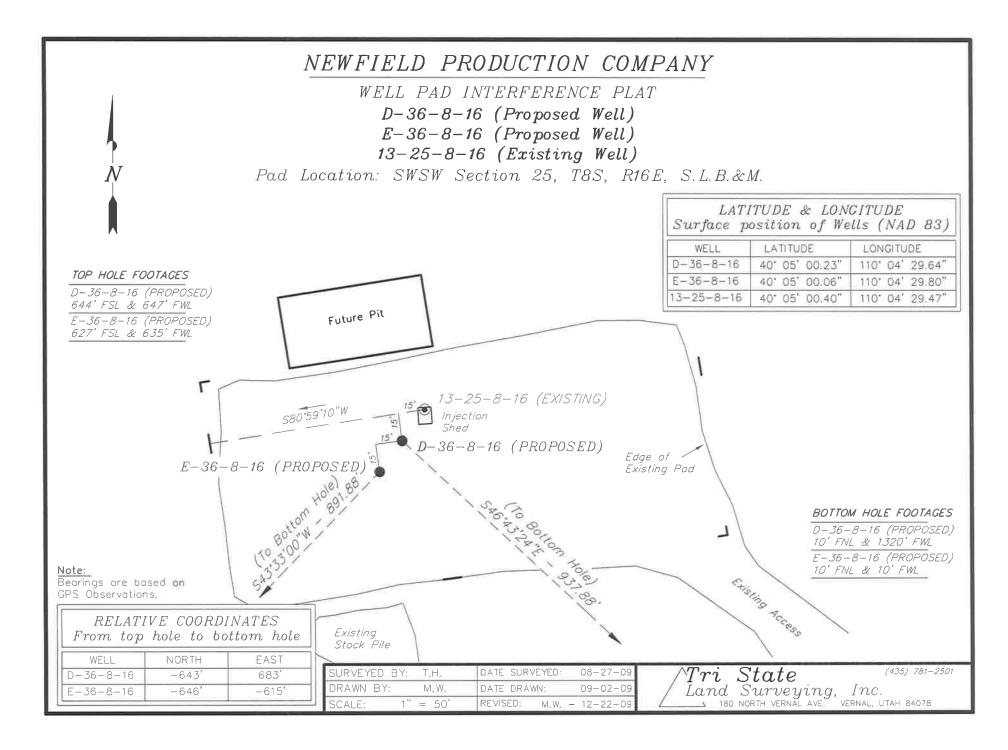
I hereby certify that the proposed drill site and access route have been inspected, and I am familiar with the conditions which currently exist; that the statements made in this plan are true and correct to the best of my knowledge; and that the work associated with the operations proposed here will be performed by Newfield Production Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of the 18 U.S.C. 1001 for the filing of a false statement.

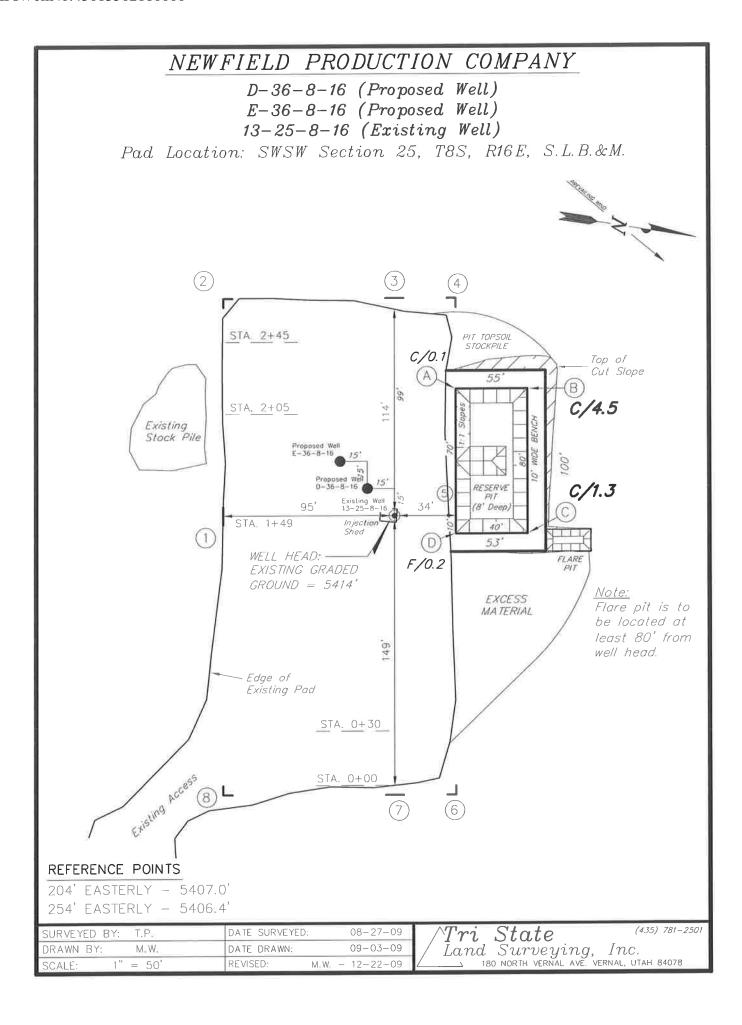
<u>1/11/10</u> Date

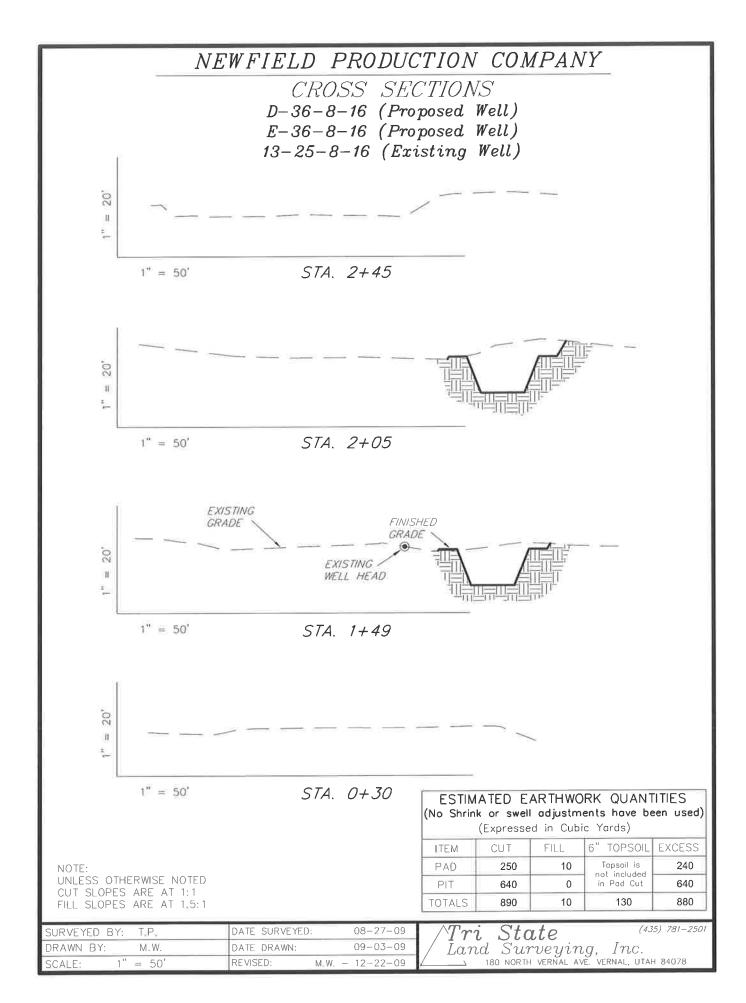
Mandie Crozier Regulatory Specialist

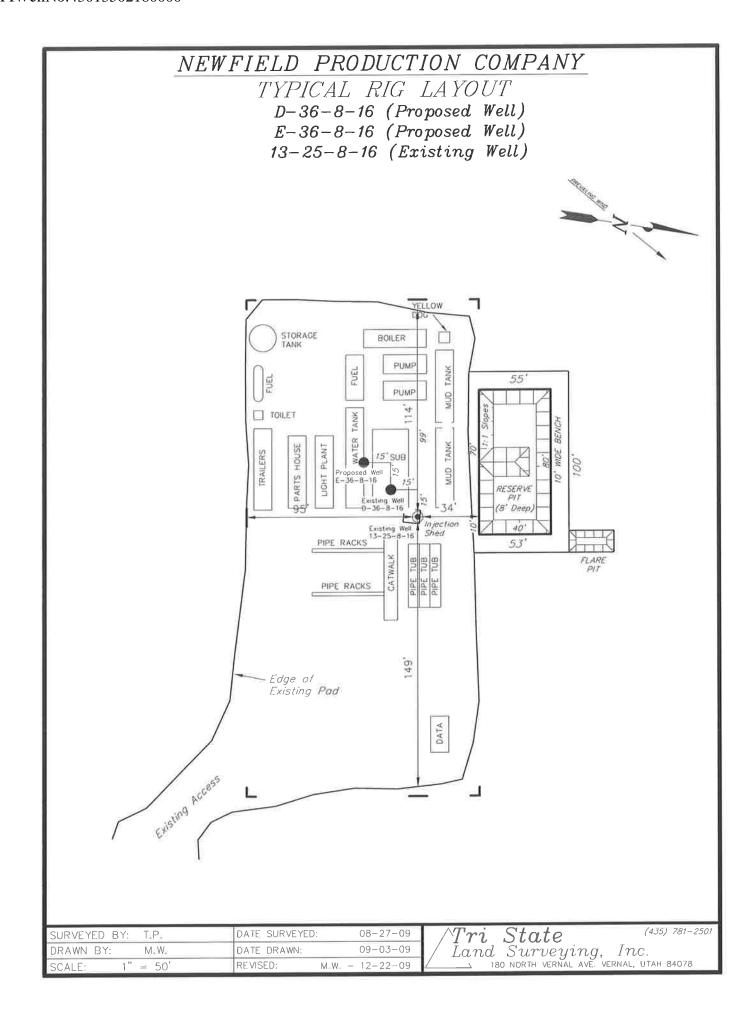
Newfield Production Company

Mandie Croze









## **Newfield Production Company Proposed Site Facility Diagram**

**Greater Monument Butte E-36-8-16** 

From the 13-25-8-16 Location

SW/SW Sec. 25 T8S, R16E

**Duchesne County, Utah** 

UTU-67170

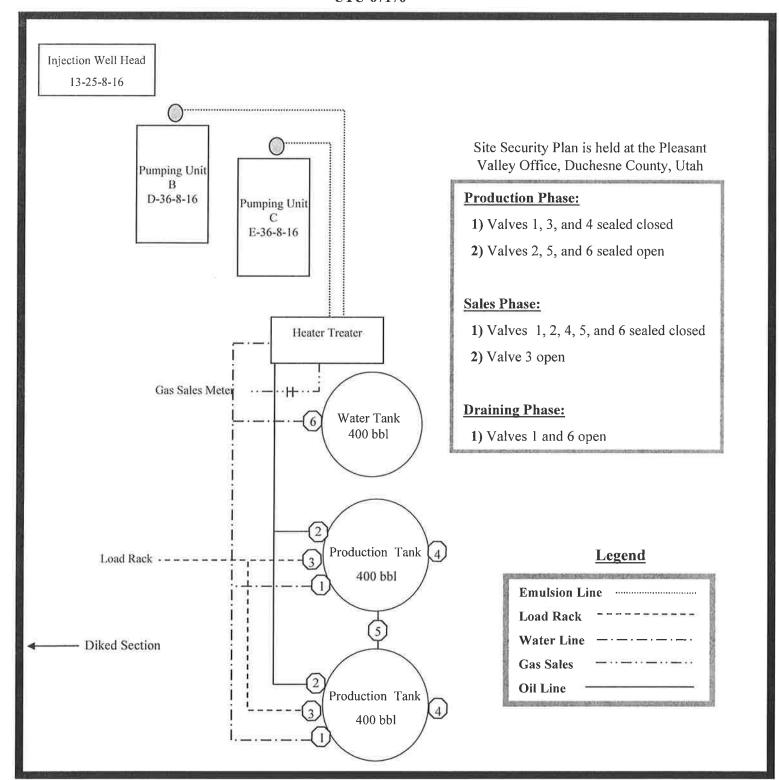


Exhibit "D"

CULTURAL RESOURCE INVENTORY OF NEWFIELD EXPLORATION'S 26 PROPOSED WELL LOCATIONS NEAR WELLS DRAW (T8S R16 SEC. 23, 24, 25, 26, 27, 34, 35 36 AND T9S R16E SEC. 1, 2, 5) DUCHESNE COUNTY, UTAH

By:

Patricia Stavish

Prepared For:

Bureau of Land Management
Vernal Field Office
and
State of Utah
School and Institutional Trust Lands Administration

Prepared Under Contract With:

Newfield Exploration Company Rt. 3 Box 3630 Myton, UT 84052

Prepared By:

Montgomery Archaeological Consultants, Inc. P.O. Box 219 Moab, Utah 84532

MOAC Report No. 09-208

December 9, 2009

United States Department of Interior (FLPMA)
Permit No. 09-UT-60122

State of Utah Public Lands Policy Archaeological Survey Permit No. 117

State of Utah Antiquities Project (Survey)
Permit No. U-09-MQ-0732bs

## NEWFIELD EXPLORATION COMPANY

# PALEONTOLOGICAL SURVEY OF PROPOSED PRODUCTION DEVELOPMENT AREAS, AND PROPOSED PIPELINE ROUTES DUCHESNE COUNTY, UTAH

#### **Area Survey**

NW 1/4, SE 1/4 Section 7, T 9 S, R 18 E (10-7-9-18)

**Proposed Directional Wells Survey** 

(All sections reported are in one of the following Townships and Ranges: T 8 & 9 S, R 16, 17 & 18 E), and are for existing wells. Proposed wells are found under "Report of Areas Surveyed."

11-6-9-17, 31-1-9-16, 4-1-9-16, 5-1-9-16, 8-2-9-16, 1-14-9-16, 10-35-8-16, 15-34-8-16, 2A-35-8-16, 1A-35-8-16, 13-25-8-16, 8-5-9-16, 16-27-8-16, 11-25-8-16, 12-30-8-17, 12-25-8-16, 10-26-8-16, 15-24-8-16, 14-23-8-16

Water Pipeline Tie-Ins Survey

SE 1/4, NE 1/4 Section 2, T 9 S, R 16 E (8-2-9-16); SW 1/4, SW 1/4 Section 1, T 9 S, R 16 E (1-14-9-16); SE 1/4, SE 1/4, Section 27, T 8 S, R 16 E (16-27-8-16); SE 1/4, SW 1/4, Section 23, T 8 S, R 16 E (14-23-8-16)

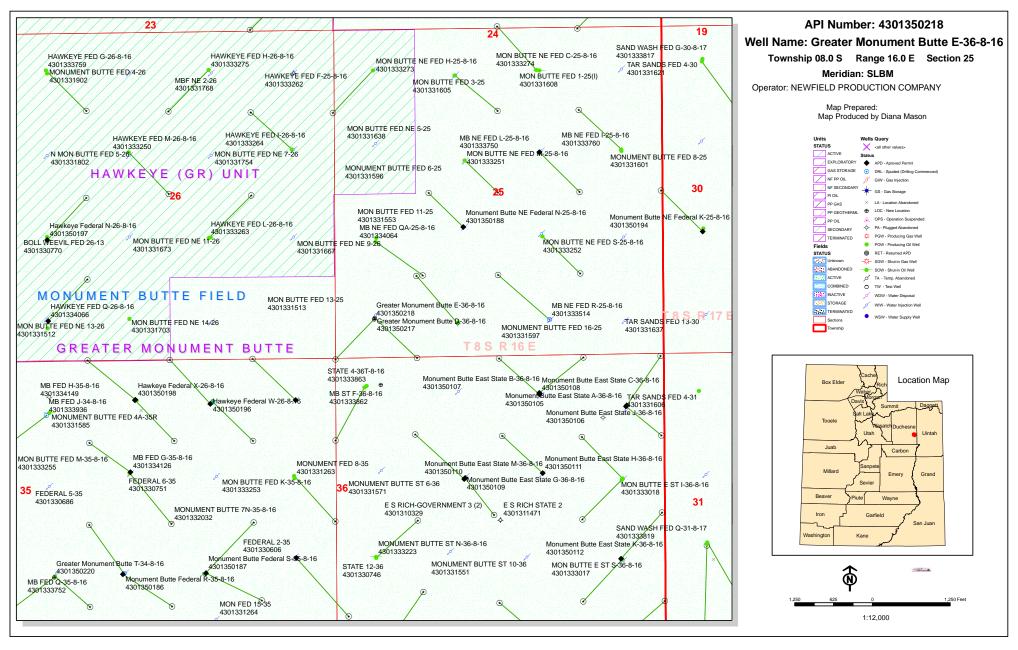
#### REPORT OF SURVEY

Prepared for:

**Newfield Exploration Company** 

Prepared by:

Wade E. Miller Consulting Paleontologist October 31, 2009





January 12, 2010

State of Utah, Division of Oil, Gas and Mining ATTN: Diana Mason P.O. Box 145801 Salt Lake City, UT 84114-5801

RE:

**Directional Drilling** 

Greater Monument Butte E-36-8-16
Greater Monument Butte (Green River) Unit

Surface Hole:

T8S-R16E Section 25: SWSW (UTU-67170)

627' FSL 635' FWL

At Target:

T8S-R16E Section 36: NWNW (ML-22061)

10' FNL 10' FWL

Duchesne County, Utah

Dear Ms. Mason;

Pursuant to the filing by Newfield Production Company (NPC) of an Application for Permit to Drill the above referenced well dated 1/11/10, a copy of which is attached, and in accordance with Oil and Gas Conservation Rule R649-3-11, NPC hereby submits this letter as notice of our intention to directionally drill this well.

The surface hole and target locations of this well are both within the boundaries of the Greater Monument Butte Unit (UTU-87538X), of which Newfield certifies that it is the operator. Further, Newfield Certifies that all lands within 460 feet of the entire directional well bore are within the Greater Monument Butte Unit.

NPC is permitting this well as a directional well in order to mitigate surface disturbance by utilizing preexiting roads and pipelines.

NPC hereby requests our application for permit to drill be granted pursuant to R649-3-11. If you have any questions or require further information, please contact the undersigned at 303-383-4197 or by email at sgillespie@newfield.com. Your consideration in this matter is greatly appreciated.

Sincerely,

Newfield Production Company

Shane Gillespie Land Associate RECEIVED

JAN 1.9 2010

DIV. OF OIL, GAS & MINING

## **United States Department of the Interior**

#### **BUREAU OF LAND MANAGEMENT**

Utah State Office
P.O. Box 45155
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO: 3160 (UT-922)

January 25, 2010

#### Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2010 Plan of Development Greater Monument

Butte Unit, Duchesne and Uintah Counties,

Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2010 within the Greater Monument Butte Unit, Duchesne and Uintah Counties, Utah.

BHL Sec 34 T08S R16E 0010 FNL 1320 FEL

API# WELL NAME LOCATION (Proposed PZ GREEN RIVER) 43-013-50213 GMBU P-26-8-16 Sec 27 T08S R16E 0697 FSL 0635 FEL BHL Sec 26 T08S R16E 1325 FSL 0010 FWL 43-013-50214 GMBU E-35-8-16 Sec 27 T08S R16E 0679 FSL 0646 FEL BHL Sec 35 T08S R16E 0010 FNL 0010 FWL 43-013-50215 GMBU C-3-9-16 Sec 34 T08S R16E 0636 FSL 2008 FEL BHL Sec 03 T09S R16E 0010 FNL 2630 FWL 43-013-50216 GMBU R-34-8-16 Sec 34 T08S R16E 0651 FSL 1994 FEL BHL Sec 34 T08S R16E 1325 FSL 2580 FWL 43-013-50217 GMBU D-36-8-16 Sec 25 T08S R16E 0644 FSL 0647 FWL BHL Sec 36 T08S R16E 0010 FNL 1320 FWL 43-013-50218 GMBU E-36-8-16 Sec 25 T08S R16E 0627 FSL 0635 FWL BHL Sec 36 T08S R16E 0010 FNL 0010 FWL 43-013-50219 GMBU B-34-8-16 Sec 27 T08S R16E 0770 FSL 1998 FEL

API# WELL NAME LOCATION

(Proposed PZ GREEN RIVER)

43-013-50220 GMBU T-34-8-16 Sec 35 T08S R16E 1804 FSL 0751 FWL BHL Sec 34 T08S R16E 1245 FSL 0010 FEL

43-013-50222 GMBU C-34-8-16 Sec 27 T08S R16E 0755 FSL 2013 FEL BHL Sec 34 T08S R16E 0010 FNL 2635 FEL

This office has no objection to permitting the wells at this time.

/s/ Michael L. Coulthard

bcc: File - Greater Monument Butte Unit
 Division of Oil Gas and Mining
 Central Files
 Agr. Sec. Chron
 Fluid Chron

MCoulthard:mc:1-25-10

## WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED:	1/12/2010		API NO. ASSIGNED:	43013502180000
WELL NAME:	Greater Monument	: Butte E-36-8-16		
OPERATOR:	NEWFIELD PRODUC	CTION COMPANY (N2695)	PHONE NUMBER:	435 646-4825
CONTACT:	Mandie Crozier			
PROPOSED LOCATION:	SWSW 25 080S 16	0E	Permit Tech Review:	
SURFACE:	0627 FSL 0635 FW	'L	Engineering Review	: 🗍
воттом:	0010 FNL 0010 FW	'L	Geology Review:	
COUNTY:	DUCHESNE			
LATITUDE:	40.08334		LONGITUDE	-110.07418
UTM SURF EASTINGS:	578935.00		NORTHINGS:	4437208.00
FIELD NAME:	MONUMENT BUTTE			
LEASE TYPE:	1 - Federal			
LEASE NUMBER:	UTU-67170	PROPOSED PRODUCING F	ORMATION(S): GREEN RIV	'ER
SURFACE OWNER:	1 - Federal		COALBED METHANE:	NO
RECEIVED AND/OR REVIEW	WED:	LOCATION AND S	SITING:	
<b>PLAT</b>		R649-2-3.	-	
Bond: FEDERAL - WYB00	00493	Unit: GMBU (G	RRV)	
Potash		R649-3-2. G	eneral	
Oil Shale 190-5				
Oil Shale 190-3		<b>⊮</b> R649-3-3. Ex	cception	
Oil Shale 190-13		<b></b> Drilling Unit	:	
<b>✓</b> Water Permit: 43-7478	}	Board Caus	se No: Cause 213-11	
RDCC Review:		Effective D	ate: 11/30/2009	
Fee Surface Agreemen	nt	Siting: Sus	pends General Siting	
Intent to Commingle		<b>⊮</b> R649-3-11. I	Directional Drill	
Commingling Approved				
Comments: Presite Co	mpleted			

1 - Exception Location - dmason 4 - Federal Approval - dmason 15 - Directional - dmason Stipulations:

API Well No: 43013502180000



### State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

### **Permit To Drill**

\*\*\*\*\*\*

Well Name: Greater Monument Butte E-36-8-16

API Well Number: 43013502180000 Lease Number: UTU-67170 Surface Owner: FEDERAL

**Approval Date:** 1/26/2010

### **Issued to:**

NEWFIELD PRODUCTION COMPANY, Rt 3 Box 3630, Myton, UT 84052

### **Authority:**

Pursuant to Utah Code Ann. §40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 213-11. The expected producing formation or pool is the GREEN RIVER Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

### **Duration:**

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

### **Exception Location:**

Appropriate information has been submitted to DOGM and administrative approval of the requested exception location is hereby granted.

### General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

### **Conditions of Approval:**

State approval of this well does not supercede the required federal approval, which must be obtained prior to drilling.

In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

### **Notification Requirements:**

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

• Within 24 hours following the spudding of the well – contact Carol Daniels at 801-538-5284 (please leave a voicemail message if not available)
OR

API Well No: 43013502180000

submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website at https://oilgas.ogm.utah.gov

### **Reporting Requirements:**

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) due within 5 days of spudding the well
- Monthly Status Report (Form 9) due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) due prior to implementation
- Written Notice of Emergency Changes (Form 9) due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) due prior to implementation
- Report of Water Encountered (Form 7) due within 30 days after completion
- Well Completion Report (Form 8) due within 30 days after completion or plugging

**Approved By:** 

Gil Hunt

Associate Director, Oil & Gas

Die Hunt

(August 2007)

### UNITED STATES DEPARTMENT OF THE INTERIOR

FORM	APPRO	OVED
OMB N	lo. 1004	-0137
Expires	July 31,	2010

### 5. Lease Serial No. 11711-67170

BUREAU OF LAND MAN	010.07170						
APPLICATION FOR PERMIT TO	6. If Indian, Allotee of NA	or Tribe Name					
la. Type of work: DRILL REENTE		7 If Unit or CA Agreement, Name and No. Greater Monument Butte					
lb. Type of Well: Oil Well Gas Well Other	1b. Type of Well: ✓ Oil Well ☐ Gas Well ☐ Other ✓ Single Zone ☐ Multiple Zone						
Name of Operator Newfield Production Company			9. API Well No. 43 613	50218			
3a. Address Route #3 Box 3630, Myton UT 84052		10. Field and Pool, or E Monument Butte					
Location of Well (Report location clearly and in accordance with an At surface SW/SW 627' FSL 635' FWL Sec. 25     At proposed prod. zone NW/NW 10' FNL 10' FWL Se	b v	11. Sec., T. R. M. or BII Sec. 25, T8S R1	•				
14. Distance in miles and direction from nearest town or post office* Approximately 14.9 miles southwest of Myton, UT		x	12. County or Parish Duchesne	13. State UT			
15. Distance from proposed* location to nearest property or lease line, ft. Approx. 10' f/lse, NA' f/unit (Also to nearest drig. unit line, if any)	16. No. of acres in lease 959.869	17. Spacin	g Unit dedicated to this was	ell Andrews			
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.  Approx. 1320'	BIA Bond No. on file VYB000493						
21. Elevations (Show whether DF, KDB, RT, GL, etc.)  22. Approximate date work will start*  23. Estimated duration  (7) days from SPUD to rig release							
	24. Attachments			e servicios i que o gran estratorio.			
The following, completed in accordance with the requirements of Onshor							
1. Well plat certified by a registered surveyor.	4. Bond to cover the	ne operation	ns unless covered by an e	xisting bond on file (see			

- 2. A Drilling Plan.
- 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
- Item 20 above).
- 5. Operator certification
- Such other site specific information and/or plans as may be required by the

	DUM.	
25. Signature	Name (Printed/Typed)	Date
Mandie rosin	Mandie Crozier	1/1/10
Title		
Regulatory Specialist	and the second s	
Approved by (Signature)	Name Jamies H. Sparger	Date NOV 1 7 2010
Acting Assistant Field Manager Lands & Mineral Resources	Office VERNAL FIELD OFFICE	
Application approval does not warrant or certify that the applicant ho	lds legal or equitable title to those rights in the subject lease which would	d entitle the applicant to

conduct operations thereon.

Conditions of approval, if any, are attached.

**CONDITIONS OF APPROVAL ATTACHED** 

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 2)



\*(Instructions on page 2)

JAN 1 3 2010

RECENTED OF APPROVAL DEC 0 6 2010

DIV. OF OIL, GAS & MINING



### UNITED STATES DEPARTMENT OF THE INTERIOR **BUREAU OF LAND MANAGEMENT VERNAL FIELD OFFICE**

**VERNAL, UT 84078** 

(435) 781-440



### CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company:	Newfield Production Company	Location:	SWSW, Sec. 25, T8S, R16E (S) NWNW, Sec. 36, T8S, R16E (B)
Well No:	<b>Greater Monument Butte E-36-8-16</b>	Lease No:	UTU-67170
API No:	43-013-50218	Agreement:	<b>Greater Monument Butte Unit</b>

**OFFICE NUMBER:** 

(435) 781-4400

**OFFICE FAX NUMBER: (435) 781-3420** 

### A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR FIELD REPRESENTATIVE TO INSURE COMPLIANCE

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.

### **NOTIFICATION REQUIREMENTS**

Location Construction (Notify Environmental Scientist)	-	Forty-Eight (48) hours prior to construction of location and access roads.
Location Completion (Notify Environmental Scientist)	-	Prior to moving on the drilling rig.
Spud Notice (Notify Petroleum Engineer)	-	Twenty-Four (24) hours prior to spudding the well.
Casing String & Cementing (Notify Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to running casing and cementing all casing strings to: <u>ut_vn_opreport@blm.gov</u> .
BOP & Related Equipment Tests (Notify Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to initiating pressure tests.
First Production Notice (Notify Petroleum Engineer)	_	Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.

Page 2 of 8 Well: GMB E-36-8-16 11/18/2010

### SURFACE USE PROGRAM CONDITIONS OF APPROVAL (COAs)

- All new and replacement internal combustion gas field engines of less than or equal to 300 designrated horsepower must not emit more than 2 gms of NO<sub>x</sub> per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower.
- All and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gms of NO<sub>x</sub> per horsepower-hour.
- If there is an active Gilsonite mining operation within 2 miles of the well location, operator shall notify the Gilsonite operator at least 48 hours prior to any blasting during construction.
- If paleontological materials are uncovered during construction, the operator is to immediately stop work and contact the Authorized Officer (AO). A determination will be made by the AO as to what mitigation may be necessary for the discovered paleontologic material before construction can continue.

### **CONDITIONS OF APPROVAL:**

Company/Operator: Newfield Production Company

Well Name & Number: Greater Monument Butte D-36-8-16, Greater Monument Butte E-36-8-16, and

Greater Monument Butte R-26-8-16

Surface Ownership: BLM

Lease Number: UTU-67170, UTU-34346 Onsite Date: 11/3/2009, 12/16/2009

Location: SW/SW Sec. 25, T8S R16E; NW/SE Sec. 26, T8S R16E

Date APD Received: 1/13/2010, 3/15/2010

- Construction and drilling is not allowed from May 1<sup>st</sup> June 15<sup>th</sup> to minimize impacts during Mountain ployer nesting.
- Construction and drilling is not allowed from March 1 August 31 to minimize impacts during burrowing owl nesting.
- If it is anticipated that construction or drilling will occur during the given timing restriction, a BLM or qualified biologist shall be notified so surveys can be conducted. Depending upon the results of the surveys, permission to proceed may or may not be recommended or granted by the BLM biologist.
- Cultural site 42Dc426, which was determined to be eligible for the National Register of Historic Places, will be avoided by 150 feet and monitored by a BLM qualified archaeologist if construction activities are within 100 meters of the site boundary.

Page 3 of 8 Well: GMB E-36-8-16 11/18/2010

• Prior to construction, an invasive plants/noxious weeds inventory will be completed for all areas where surface disturbance will occur and a completed Weed Inventory Form will be submitted to the BLM Authorized Officer.

### Reclamation

• Reclamation will be completed in accordance with the Newfield Exploration Company Castle Peak and Eight Mile Flat Reclamation Plan on file with the Vernal Field Office of the BLM.

**Seed Mix (Interim and Final Reclamation)** 

Common name	Latin name	lbs/acre	Recommended seed planting depth
Squirreltail grass	Elymus elymoides	3.0	1/4 - 1/2"
Needle and thread grass	Hesperostipa comata	3.0	1/2"
Idaho fescue	Festuca idahoensis	2.0	1/4 - 1/2"
Scarlet globemallow	Sphaeralcea coccinea	1.0	1/8 - 1/4"
Galleta grass	Pleuraphis jamesii	3.0	1/2**
Gardner's saltbush	Atriplex gardneri	2.0	1/2"
Blue flax (Lewis flax)	Linum lewisii	2.0	1/8 - 1/4"

- All pounds are pure live seed.
- All seed and mulch will be certified weed free.
- Rates are set for drill seeding; double rate if broadcasting.

### Monitoring and Reporting

- The operator shall submit a Sundry Notice (Form 3160-5) to the BLM Authorized Officer (AO) that designates the proposed site-specific monitoring and reference sites chosen for the location. A description of the proposed sites shall be included, as well as a map showing the locations of the proposed sites.
- The operator shall submit a Sundry Notice (Form 3160-5) to the BLM Authorized Officer (AO) three (3) growing seasons after reclamation efforts have occurred evaluating the status of the reclaimed areas in order to determine whether the BLM standards set forth in the Green River District Reclamation Guidelines have been met (30% or greater basal cover).

Page 4 of 8 Well: GMB E-36-8-16 11/18/2010

## DOWNHOLE PROGRAM CONDITIONS OF APPROVAL (COAs)

### SITE SPECIFIC DOWNHOLE COAs:

• Newfield Production Co. shall adhere to all referenced requirements in the SOP (version: June 24, 2008) ) along with all Oil and Gas rules and requirements listed in the Code of Federal Regulations and all Federal Onshore Oil and Gas Orders.

All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to. The following items are emphasized:

### DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a test pump with a chart recorder and <u>NOT</u> by the rig pumps. Test shall be reported in the driller's log.
- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.
- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.
- No aggressive/fresh hard-banded drill pipe shall be used within casing.
- Cement baskets shall not be run on surface casing.
- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal Field Office.

Page 5 of 8 Well: GMB E-36-8-16 11/18/2010

• The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.

- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.
- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM, Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.
- A cement bond log (CBL) will be run from the production casing shoe to the <u>top of cement</u> and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.
- Please submit an electronic copy of all other logs run on this well in LAS format to UT\_VN\_Welllogs@BLM.gov. This submission will supersede the requirement for submittal of paper logs to the BLM.
- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

Page 6 of 8 Well: GMB E-36-8-16 11/18/2010

### **OPERATING REQUIREMENT REMINDERS:**

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.
- In accordance with 43 CFR 3162.4-3, this well shall be reported on the "Monthly Report of Operations" (Oil and Gas Operations Report ((OGOR)) starting with the month in which operations commence and continue each month until the well is physically plugged and abandoned. This report shall be filed in duplicate, directly with the Minerals Management Service, P.O. Box 17110, Denver, Colorado 80217-0110, or call 1-800-525-7922 (303) 231-3650 for reporting information.
- Should the well be successfully completed for production, the BLM Vernal Field office must be notified when it is placed in a producing status. Such notification will be by written communication and must be received in this office by not later than the fifth business day following the date on which the well is placed on production. The notification shall provide, as a minimum, the following informational items:
  - Operator name, address, and telephone number.
  - Well name and number.
  - o Well location (1/4/4, Sec., Twn, Rng, and P.M.).
  - O Date well was placed in a producing status (date of first production for which royalty will be paid).
  - o The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
  - o The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
  - o Unit agreement and/or participating area name and number, if applicable.
  - o Communitization agreement number, if applicable.
- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.
- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.

Page 7 of 8 Well: GMB E-36-8-16 11/18/2010

- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs, core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.
- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.
- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office
  Petroleum Engineers will be provided with a date and time for the initial meter calibration and all
  future meter proving schedules. A copy of the meter calibration reports shall be submitted to the
  BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid
  hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall be
  identified as the point of sale or allocation for royalty purposes.
- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with Onshore Oil & Gas Order No. 3.
- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering
  lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a
  suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be
  obtained orally, but such approval does not waive the written report requirement.
- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover
  equipment shall be removed from a well to be placed in a suspended status without prior approval of
  the BLM Vernal Field Office. If operations are to be suspended for more than 30 days, prior
  approval of the BLM Vernal Field Office shall be obtained and notification given before resumption
  of operations.
- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.

Page 8 of 8 Well: GMB E-36-8-16 11/18/2010

• Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.

# BLM - Vernal Field Office - Notification Form

Operator Newfield Exploration Rig Name/# Ross 29 Submitted By Adam Ferrari Phone Number 435-823-6740 Well Name/Number Federal E-36-8-16 Qtr/Qtr SW/SW Section 35 Township 85 Range 16E Lease Serial Number UTU-67170 API Number 43-013-50218
<u>Spud Notice</u> – Spud is the initial spudding of the well, not drilling out below a casing string.
Date/Time <u>1/17/2011</u> <u>08:00</u> AM ⊠ PM □
Casing – Please report time casing run starts, not cementing times.  Surface Casing Intermediate Casing Production Casing Liner Other
Date/Time <u>1/17/2011</u>
BOPE Initial BOPE test at surface casing point BOPE test at intermediate casing point 30 day BOPE test Other
Date/Time AM PM
Remarks

OPERATOR: NEWFIELD PRODUCTION COMPANY

ADDRESS: RT. 3 BOX 3630

MYTON, UT 84052

OPERATOR ACCT. NO. N2695

ACTION CODE	CURRENT ENTITY NO.	NEW	API NUMBER	WELL NAME			******				
CODE	ENTITY NO.	ENTITY NO.	7 1 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	WANT NAME	QQ	sc	MEIT I	OGATION RG	COUNTY	SPUD DATE	EFFECTIVE DATE
В	99999	17400	4301350218	FEDERAL E-36-8-16	swsw	25 -38	88	16E	DUCHESNE	1/17/2011	1/26/2011
WELL 1 C	OMMENTS:				3					·	1 40,070,011
ACTION	GRRV	<b>.</b>		BM= Sec 36 N	WHW					*****	
CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	API NUMBER	WELL NAME			LL LOCAT			SPUD	EFFECTIVE
		2,,,,,,,,,	<u> </u>		<u> </u>	SC.	_TP	RG	COUNTY	DATE	DATE
В	99999	17400	4301350217	FEDERAL D-36-8-16	swsw	25 36	8 <b>S</b>	16E	DUCHESNE	1/14/2011	1/26/2011
	GRRV BHL = Sec 36 NWNW -										
ACTION CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	API NUMBER	WELL NAME	QQ		WELL	OCATION		SPUD DATE	EPFECTIVE
						SC	TP.	RG	COUNTY	DATE	
В	99999	17400	4301350239	FEDERAL S-27-8-16	NESE	27	88	16E	DUCHESNE	1/13/2011	1/26/2011
	GRRV BHL= SWSE								•		
ACTION CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	API NUMBER	WELL NAME				CATION		SPUD	EFFECTIVE
		5	<del></del>		QQ	SC	TP	RG	COUNTY	DATE	DATE
<u>A</u>	99999	17939	4301350399	MEAGHER 9-20-4-2	NESE	20	48	2W	DUCHESNE	1/24/2011	1/26/2011
ACTION	GRRV	<del></del>									_
CODE	ENTITY NO.	NEW ENTITY NO.	API NUMBER	WELL NAME				OCATION		SPUD	EPPECTIVE
					90	sc	पा	RG	COUNTY	DATE	DATE
A	99999	17930	4301350319	UTE TRIBAL 3-16-4-2	NENW	16	48	2W	DUCHESNE	1/21/2011	1/26/2011
ACTION	GRRV	,								-	-
CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	API NUMBER	WELL NAME			WELL LO	CATION		SPUD	EFFECTIVE
	CHAIT NO.	ENTIT NO.		(1 (2-x) =	00	sc .	. TP	RG	COUNTY	DATE	DATE
_		/ <i>V</i>		GREATER MON BUTTE		Ì					
В	99999	17400	4301350277	*FEDERAL P-25-8-16	NWSW	25	88	16E	DUCHESNE	1/20/2011	
ACTION CO	GRRV DES (See Instructions on back	k of form)		BHL SWSW		<u> </u>				1	
A- 11	now entity for new well (single v	well only)							11/11	1/ /	· · · · · · · · · · · · · · · · · · ·
B- 14	veil to existing entity (group or a	unit well)		RECEIVED					//1//		4 m
C - 10	om one existing entity to anothe	or existing entity		MECEIVED		,		,	Signature //	<del></del>	Jentri Park
	eli from one axisting entity to a or (explain in comments sectio			IAN 2 L OOM					/ / //		
		~,		JAN 2 4 2011					Production Clerk		01/24/11

DIV. OF OIL, GAS & MINING

NOTE: Use COMMENT section to explain why each Action Code was selected.



## UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED OMB No. 1004-0137 Expires: July 31,2010

	BUREAU OF LAND MANA	AGEMENT		5. Lease Serial No	-	
SUNDRY						
Do not use t abandoned w	USA UTU-6717 6. If Indian, Allott					
SUBMIT IN	TRIPLICATE - Other	Instructions on pag	re 2	7. If Unit or CA/Agreement, Name and/or		
	GMBU	greement, Name and/or				
I. Type of Well				GIMBO		
Oil Well Gas Well  2. Name of Operator	Other		8. Well Name and			
NEWFIELD PRODUCTION CO	DMPANY			GRTR MB E-36- 9. API Well No.	8-16	
3a. Address Route 3 Box 3630		3b. Phone (includ	e are code)	4301350218		
Myton, UT 84052		435.646.3721			, or Exploratory Area	
4. Location of Well (Footage,	Sec., T., R., M., or Survey Descr		GREATER MB			
Section 36 T8S R16E			<ol> <li>County or Pari</li> <li>DUCHESNE, U</li> </ol>			
12. CHECK	X APPROPRIATE BOX(I	ES) TO INIDICATE	NATURE OF NO			
AATYPE OF SUBMISSION	·	7	YPE OF ACTION			
Division of	Acidize	Deepen	Production	(Start/Resume)	☐ Water Shut-Off	
Notice of Intent	☐ Alter Casing	Fracture Treat	Reclamation	on	Well Integrity	
Subsequent Report	Casing Repair	New Construction	n Recomplet	e	☑ Other	
Final Abandonment	Change Plans Convert to Injector	☐ Plug & Abandon☐ Plug Back	Temporari Water Dis	y Abandon oosal	Spud Notice	
victorio più di sali	obls cement to pit. WOC.			DIV	RECEIVED  JAN 2 5 2011  OF OIL, GAS & MINING	
Addition of the second						
I hereby certify that the foregoing is	s true and	Title				
Ryan Crum		Drilling Fo	oreman			
Signature	Zuu /	Date 01/21/201		*		
1	THIS SPACE FO	OR FEDERAL OR		USE		
No. of						
	and Ammerical of this motion does not		tle	Date		
Conditions of approval, if any, are attack certify that the applicant holds legal or e which would entitle the applicant to con-	quitable title to those rights in the sul		ffice			
Title 18 U.S.C. Section 1001 and Title 4	•	ne for any person knowingly	and willfully to make to a	ny department or age	ncy of the United	

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the Unit States any false, fictitious and fraudulent statements or representations as to any matter within its jurisdiction

# NEWFIELD PRODUCTION COMPANY - CASING & CEMENT REPORT

			8 5/8"	CASING SET AT	<del></del>	311.35	· ,		
LAST CASING	14	SET AT	8		OPERATO	R	Newfield	Exploration	Company
DATUM	12	<u>-</u>					B E-36-8-16		
DATUM TO CUT	OFF CASI	VG	12	_	FIELD/PRO	DSPECT	Monumer	nt Butte	
DATUM TO BRA				-	CONTRAC	TOR & RIG	#	Ross # 29	
TD DRILLER	310	LOGG	ER				<del> </del>		
HOLE SIZE	12 1/4"								
*C*****									
LOG OF CASING	STRING:								
PIECES	OD	ITEM - M	AKE - DES	CRIPTION	WT/FT	GRD	THREAD	CONDT	LENGTH
1		Well Head						Α	0.95
7	8 5/8"	ST&C Casi	ng ( 40.65'	)	24	J-55	STC	Α	299.5
1		Guide Sho	9					Α	0.9
1. 14					(				
I Aljubi									
: ESIM-									
CASING INVENT	ORY BAL.		FEET	JTS	TOTAL LE	NGTH OF S	STRING		301.35
TOTAL LENGTH	OF STRING	G	301.35	7	LESS CUT	2			
LESS NON CSG	ITEMS		1.85		PLUS DATUM TO T/CUT OFF CSG 12				
PLUS FULL JTS		-	0		CASING S	ET DEPTH			311.35
my desirable common in the common section of	TOTAL		299.5	7	] _				
TOTAL CSG. DE	L. (W/O TH	RDS)	299.5	7	} COMPA	ARE .			
т.,	IMING				]				
BEGIN RUN CS		Spud	8:00 AM	1/18/2011	GOOD CIR	RC THRU JO	OB	Yes	
CSG. IN HOLE			4:00 PM	1/19/2011	Bbls CMT (	CIRC TO S	URFACE	5	
BEGIN CIRC			3:25 PM	1/20/2011	RECIPRO	CATED PIP	No_		
BEGIN PUMP CI	ИT		3:33 PM	1/20/2011					
REGIN DODL CO	AT		3.48 DM	1/20/2011	BUMPED	OLUG TO	500		

3:54 PM

1/20/2011

PLUG DOWN

MG PPT

ALEGO ON

CEMENT USED	1	CEMENT COMPANY- BJ	Services				
STAGE	# SX	CEMENT TYPE & ADDITIVES					
		Class "G" +2%CaCl+.25#skCelloflake Mixed @ 15.8ppg W/1.17 yield					
	.:	Returned 5bbls to pit					
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7.							

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Established A. J.

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### STATE OF UTAH

	5. LEASE DESIGNATION AND SERIAL NUMBER: USA UTU-67170					
SUNDRY						
Do not use this form for proposals to dri wells, or to drill horizont	7. UNIT or CA AGREEMENT NAME: GMBU					
1. TYPE OF WELL: OIL WELL			8. WELL NAME and NUMBER: GRTR MB E-36-8-16			
2. NAME OF OPERATOR:			9. API NUMBER:			
NEWFIELD PRODUCTION COM	IPANY		4301350218			
3. ADDRESS OF OPERATOR:	army Made and All The	PHONE NUM				
Route 3 Box 3630  4. LOCATION OF WELL:	CITY Myton STATE UT	ZIP 84052 435.646.3°	21 GREATER MB UNIT			
FOOTAGES AT SURFACE:	,		COUNTY: DUCHESNE			
OTR/OTR. SECTION. TOWNSHIP, RANGE.	MERIDIAN: , 6, T8S, R16E		STATE: UT			
	PRIATE BOXES TO INDICAT	E NATURE OF NOTI	CE, REPORT, OR OTHER DATA			
TYPE OF SUBMISSION		TYPE OF AC	CTION			
NOTICE OF INTENE	ACIDIZE	DEEPEN	REPERFORATE CURRENT FORMATION			
NOTICE OF INTENT (Submit in Duplicate)	ALTER CASING	FRACTURE TREAT	SIDETRACK TO REPAIR WELL			
Approximate date work will	CASING REPAIR	NEW CONSTRUCTION	TEMPORARITLY ABANDON			
	CHANGE TO PREVIOUS PLANS	OPERATOR CHANGE	TUBING REPAIR			
	CHANGE TUBING	PLUG AND ABANDON	VENT OR FLAIR			
X SUBSEQUENT REPORT	CHANGE WELL NAME	PLUGBACK	WATER DISPOSAL			
(Submit Original Form Only)	CHANGE WELL STATUS	PRODUCTION (START/STO)	<u> </u>			
Date of Work Completion:	COMMINGLE PRODUCING FORMATIONS					
04/11/2011	I =	RECLAMATION OF WELLS	· ·			
	CONVERT WELL TYPE	RECOMPLETE - DIFFERENT				
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.  The above subject well was completed on 04-11-11, attached is a daily completion status report.						
NAME (PLEASE PRINT) Lucy Chavez-N	aupoto	TITLE Admi	nistrative Assistant			
SIGNATURE Surge	Denfor	DATE 04/11				

This space for State use only)

RECEIVED
APR 2 5 2011

### **Daily Activity Report**

### Format For Sundry GRTR MB E-36-8-16 2/1/2011 To 6/30/2011

3/23/2011 Day: 1

Completion

Rigless on 3/23/2011 - Rigged up Perforators WLT with mast and pack off tool. Ran CBL under pressure. WLTD was 6514' with TOC at 169'. SWIFN. - Nipple up frac head and Weatherford BOPs. Rig up Preferred hot oiler and test casing, frac head, frac valves and BOP to 4500 psi. Rig up Perforators WLT with mast and pack off tool. Run CBL under pressure. WLTD was 6514' with TOC at 169'. Run in hole with 3-1/8" ported guns and perforate A3 sands as shown in perforation report. Rig down WLT and hot oiler. SIWFN w/ 155 BWTR.

Daily Cost: \$0

**Cumulative Cost:** \$14,782

### 3/29/2011 Day: 2

Completion

Rigless on 3/29/2011 - Frac stgs 1-4. FB to pit. - RU The Perforators wireline. Set CFTP @ 5440' & perf stg 2- B1/C sds as shown in perforation report. RU BJ Services. Frac stg 2- B1/C sds as shown in stimulation report. 963.2 BWTR. - RU The Perforators wireline. Set CFTP @ 5150' & perf stg 3- D1 sds as shown in perforation report. RU BJ Services. Frac stg 3- D1 sds as shown in stimulation report. 1350 BWTR. - RU The Perforators wireline. Set CFTP @ 4685' & perf stg 4- GB6 sds as shown in perforation report. RU BJ Services. Frac stg 4- GB6 sds as shown in stimulation report. 1618.8 BWTR. - Crew travel and safety meeting. RU BJ Services. Frac stg 1- A3 sds as shown in stimulation report. 583.5 BWTR. - RD BJ Services & The Perforators wireline. Open well to pit for immediate flowback @ approx. 3 bpm. Well flowed for 6 hrs & went to oil. Recovered 1080 bbls. SWIFN. 538.8 BWTR. - MIRUWL to set KP @ 4550'. BO well and RDMOWL. SWIFN.

**Daily Cost:** \$0

**Cumulative Cost:** \$93,731

### 4/7/2011 Day: 3

Completion

Rigless on 4/7/2011 - MIRUWOR, RIH to DO KP @ 4550'. SWIFN. - Crew travel and safety meeting. Unload tbg and wait on wind to die down. Remove thread protectors and talley. RDWOR off of the D-36-8-16 spot over and RU onto the E-36-8-16 @ 11:00 AM. ND frac BOPS and WH. RU prod. WH and BOPS. RU floor and RIH w/ chomp bit and tag KP @ 4550'. DO and well started flowing w/ 1200# SWIFN. Ordered a bigger FB tank that will deliver in the AM.

Daily Cost: \$0

**Cumulative Cost:** \$99,731

### 4/8/2011 Day: 4

Completion

WWS #1 on 4/8/2011 - Drilled out 3 plugs and cleaned out to PBTD. Laid down 2 joints of tubing and rigged up swab equipment. Made 6 swab runs and recovered 85 bbls of fluid. Rigged up well to flow to flowline line and turned well over to pumper. - Crew travel and safety meeting on picking up pipe with the winch line. Pressure on casing at 1100 psi and pressure on tubing at 1000 psi. Circulate well until well was dead. Run into hole with tubing, tag plug at 4685', and drill out plug in 23 minutes. Run into hole with tubing, tag fill at 5123', clean out fill to plug at 5150', and drill out plug in 32 minutes. Run into hole with tubing, tag fill at 5330', clean out fill to plug at 5440', and drill out plug in 47 minutes. Run into hole with

tubing, tag fill at 6330', clean out fill to PBTD at 6560', and circulate well clean. Rig down power swivel and lay down 2 joints of tubing to place end of tubing at 6486'. Rig up swab equipment, make 6 swab runs, and recover 85 bbls of fluid. - Well started flowing up tubing. Rig up 20/64 choke to flowline and turn well over to pumper. Recovered a total of 240 bbls of water and 180 bbls of oil. 298 BWTR.

Daily Cost: \$0

**Cumulative Cost:** \$149,237

### 4/11/2011 Day: 5

Completion

WWS #1 on 4/11/2011 - Circ well TIH to tag PBTD. TOOH and LD bit/bit sub. RBIH w/ production string and rods. Stroke test pump and PWOP. - Crew travel and safety meeting. SICP @ 900#, SITB @ 800#. RU pump and Cric 140 Bbls production wtr then pump 160 Bbls 9.5# Brine. PU 25 jts. To tag PBTD @ 6560'. LD 26 jts and TOOH w/80 jts. Circ well with another 50 Bbls Brine. Cont. TOOH w/104 jts. LD Bit and bit sub. TIH w/NC, 2 jts, PSN, 1 jt, TAC, 181 jts. RD floor, ND BOPS, Set TAC, @ 5656.35' then X-over to run rods. PU and prime Cent Hyd pump 25-175 RHAC 20 X 4 X 21 X 24'. Run rods per rod report. Fill tbg with wtr, hang head and stroke test pump to 800# w/ unit. PWOP @ 18:30. 144" stroke. - Finalized Daily Cost: \$0

Cumulative Cost: \$228,376

**Pertinent Files:** Go to File List

# UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED OMB NO. 1004-0137 Expires: July 31, 2010

5. Lease Serial No.

### WELL COMPLETION OR RECOMPLETION REPORT AND LOG

													UTL	J-6717	0		
la. Type of b. Type of 6	Well Completion:	<b>Z</b> 0	il Well lew Wel	ı G	as Well ork Over	Dry Deepen	Other Plug Back	☐ Diff	f. Resvr.	,			6. If	Indian,	Allottee or	Tribe N	lame
v. 1, po v.	- comproducing		ther:										GM	3U	A Agreeme		e and No.
2. Name of NEWFIELD	Operator DEXPLOF	RATIO	и сом	IPANY									GRI	R MB	me and Wel E-36-8-16		
3. Address	1401 17TH S	ST. SUITE	E 1000 DI	ENVER, C	O 80202			a. Phone 1 (435) 646		lude are	ea code	?)		FI Well 13-50			
4. Location	of Well (Re	eport lo	cation cl	learly and	l in accord	ance with Feder	al requireme	ents)*	3itL	. rei	nei	ved			d Pool or Ex	plorato	ory
At surface	e 627' FSI	L & 63!	5' FWL	(SW/SV	V) SEC. 2	25, T8S, R16E	E, UTU-671	170	þ	<u>"Y</u> H	KM	<b>1</b>	11. S	Sec., T., Survey o	R., M., on I	Block a	nd S, R16E
At top pro	d. interval r	eported	below	77' FSL	& 113' F\	WL (SW/SW)	SEC. 25, T	78S, R16	E, UTU	J-6717	0				or Parish		3. State
At total de	epth 207' F	-NL &	154' FE	EL (NE/N	NE) SEC.	36, T8S, R16	E, UTU-16	535						CHESN			IT
14. Date Sp 01/18/201				Date T. 3/13/20				Date Com D & A		04/08/2 Ready t					ns (DF, RK <b>5426' KB</b>	B, RT,	GL)*
18. Total De	•	6639 D 6526	-		19. Plu	g Back T.D.:	MD 6514'	403		20. D	epth Br	ridge Plug		MD TVD			
	ectric & Oth	er Mech	anical L			y of each) SO; UTRON,GR,	DSN, TY CALIPER,	SFIN CMT BO		V	Vas DS	l cored? Frun? nal Survey	<b>∠</b> N <b>∠</b> N ?	。 🗖	Yes (Subm Yes (Subm Yes (Subm	it report	)
23. Casing	and Liner R	lecord (	Report of	all strings	s set in wel	)		DMI				•		- 14.1			
Hole Size	Size/Gra	ade	Wt. (#/ft	.) To	op (MD)	Bottom (MD		Cementer epth	1	of Sks of Cer		Slurry (BE		Cem	ent Top*		Amount Pulled
12-1/4"	8-5/8" J-		24#	0		311'			<del> </del>	LASS				169'			
7-7/8"	5-1/2" J-	-55	15.5#	0		6606'				O/50 F				109			
24. Tubing	Record								<u></u>				-				
Size 2-7/8"		Set (MD 0 5755		cker Dept @ 5656'	h (MD)	Size	Depth S	Set (MD)	Packer	Depth (	(MD)	Siz	e	Dept	th Set (MD)	<u> </u>	Packer Depth (MD)
25. Produci		_	1.0	<u>@ 3030</u>				erforation									
A) Green l	Formation River	n		4612'	op [	Bottom 5687'	5670-5	rforated Ir	iterval		.36"	Size	No. I	Holes		Pert	Status
B)							4612-5				.34"		57				
C)																	
D)		<del></del>		0													
27. Acid, F	Depth Inter		Cement	Squeeze,	etc.				Amount	and Ty	pe of N	/laterial					
4612-5687	7'			Frac w/	124819#	's 20/40 sand	in 955 bbls	s of Light	ning 17	fluid i	in 4 st	ages			REC	EI/	/ED
															MAY	1 በ	2011
															ואויו	1 0	2011
28. Product Date First		al A Hours	Tes		Oil		Water	Oil Gra	vity	Ga		Proc	luction M	leth (1)	<mark>/. OF O</mark> L,	GAS	& MINING
Produced		Tested	Pro	duction	BBL		BBL	Corr. A	ΡΙ	Gra	avity	2-1	/2" x 1-	1/5" x 2	20' x 21' x	24' RH	IAC Pump
4/6/11 Choke	4/18/11 Tbg. Press.	Cso	24 1	Hr	92 Oil	O Gas	82 Water	Gas/Oil		- W	ell Stati	us			<del></del>		
Size	Flwg. Sl	Press.	Rat		BBL		BBL	Ratio				CING					
28a. Produc	tion - Inter	val B			l	1											
Date First Produced	Test Date	Hours Tested	Tes Pro		Öil BBL		Water BBL	Oil Gra Corr. A		Ga Gr	s avity	Proc	luction M	lethod			
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 I Rat		Oil BBL		Water BBL	Gas/Oil Ratio		We	ell Stat	us					

<sup>\*(</sup>See instructions and spaces for additional data on page 2)

28h Produ	uction - Inte	rval C									
Date First		Hours	Test	Oil	Gas	Water	Oil C	Gravity	Gas	Production Method	
Produced		Tested	Production	BBL	MCF	BBL	Corr	. API	Gravity		
Choke	Tbg. Press.	Csg.	24 Hr.	Oil	Gas	Water	Gas/		Well Status		
Size	Flwg. Sl	Press.	Rate	BBL	MCF	BBL	Ratio	)			
28c. Produ	uction - Inte	rval D									
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL		Pravity . API	Gas Gravity	Production Method	
Choke Size	Tbg. Press. Flwg.	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/ Ratio		Well Status		
	SI		<b>-</b>								
29. Dispo	sition of Ga	s (Solid, us	red for fuel, ve	ented, etc.)							
USED FOR											
30. Sumn	nary of Porc	ous Zones	(Include Aqu	ifers):		,			31. Formati	on (Log) Markers	
Show a includi recove	ing depth int	t zones of p terval teste	porosity and c d, cushion use	ontents the	ereof: Cored ol open, flow	intervals and all ing and shut-in	l drill-ste pressure:	em tests, s and	GEOLOG	ICAL MARKERS	
		}			_					N.	Тор
For	nation	Тор	Bottom		Des	criptions, Conte	ents, etc.			Name	Meas. Depth
GREEN RI	VER	4612'	5687'		<del></del>				GARDEN GU GARDEN GU		4013' 4223'
									GARDEN GU POINT 3	ILCH 2	4349' 4622'
									X MRKR Y MRKR		4874' 4907'
									DOUGALS C BI CARBONA		5030' 5286'
									B LIMESTON CASTLE PEA		5424' 5908'
									BASAL CARE WASATCH	BONATE	6337' 6465'
32. Addi	tional remar	ks (include	plugging pro	cedure):							
33. Indic	ate which it	ems have b	een attached	by placing	a check in th	e appropriate bo	oxes:				
_			s (1 full set req g and cement v			Geologic Repo Core Analysis	rt	☐ DST R  ☑ Other:	Report  Drilling Daily	Directional Survey  Activity	
34. 1 here	eby certify the	hat the fore	egoing and att	ached info	rmation is co	mplete and corre	ect as de	termined fro	om all available r	records (see attached instruction	ns)*
			ennifer Peat				Title		on Technician	•	
	Signature _{	Ve	atroc	6				05/04/20			
Title 18 U	J.S.C. Section	on 1001 an	d Title 43 U.S	S.C. Section	n 1212, make	it a crime for a	ny perso jurisdict	n knowingl	y and willfully to	make to any department or ago	ency of the United States any



## **NEWFIELD EXPLORATION**

USGS Myton SW (UT) SECTION 36 T8S, R16E E-36-8-16

Wellbore #1

Design: Actual

## **Standard Survey Report**

28 March, 2011





Survey Report



Company:

**NEWFIELD EXPLORATION** 

Project:

USGS Myton SW (UT)

Site:

SECTION 36 T8S, R16E

Well: Wellbore: E-36-8-16

Design:

Wellbore #1 Actual

Local Co-ordinate Reference:

Well E-36-8-16

E-36-8-16 @ 5426.0ft (NEWFIELD RIG)

TVD Reference: **MD Reference:** North Reference:

E-36-8-16 @ 5426.0ft (NEWFIELD RIG) True

**Survey Calculation Method:** 

Database:

Minimum Curvature

EDM 2003.21 Single User Db

Project

USGS Myton SW (UT), DUCHESNE COUNTY, UT, USA

Map System: Geo Datum:

US State Plane 1983

North American Datum 1983

Map Zone:

Utah Central Zone

System Datum:

Mean Sea Level

Site

SECTION 36 T8S, R16E, SEC 26 T8S, R16E

Site Position:

Lat/Long

Northing:

7,202,697.00 ft

Latitude:

40° 5' 3.401 N

From:

Position Uncertainty:

Easting: Slot Radius: 2,045,250.00 ft

Longitude:

110° 3' 10.915 W **Grid Convergence:** 

0.93°

Well

E-36-8-16, SHL LAT: 40 05 00.06, LONG: -110 04 29.80

**Well Position** 

+N/-S +E/-W 0.0 ft

Northing:

7,202,260.51 ft

Latitude:

40° 5' 0.060 N

**Position Uncertainty** 

0.0 ft 0.0 ft

0.0 ft

Easting:

2,039,125.19 ft

Longitude:

110° 4' 29.800 W

Wellhead Elevation:

5,426.0 ft

**Ground Level:** 

5,414.0 ft

Wellbore

Wellbore #1

Magnetics

Model Name

Sample Date

Declination

Dip Angle

Field Strength

(nT)

IGRF200510

2009/10/14

11.52

(°)

52,486

Design

Actual

To

(ft)

**Audit Notes:** 

Version:

1.0

Phase:

ACTUAL

Tie On Depth:

0.0

65.88

Vertical Section:

Depth From (TVD) (ft)

+N/-S

+E/-W

Direction

0.0

(ft) 0.0 (ft) 0.0

(°) 223.55

**Survey Program** From

(ft)

2011/03/28 Date

**Tool Name** 

Description

333.0

Survey (Wellbore) 6,639.0 Survey #1 (Weilbore #1)

MWD

MWD - Standard

Survey

Measured			Vertical			Vertical	Dogleg	Build	Turn
Depth (ft)	Inclination (°)	Azimuth (°)	Depth (ft)	+N/-S (ft)	+E/-W (ft)	Section (ft)	Rate (°/100ft)	Rate (°/100ft)	Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
333.0	0.92	289.02	333.0	0.9	<b>-2.5</b>	1.1	0.28	0.28	0.00
363.0	0.83	305.19	363.0	1.1	-2.9	1.2	0.87	-0.30	53.90
393.0	1.01	296.62	393.0	1.3	-3.3	1.4	0.75	0.60	-28.57
424.0	0.90	269.50	424.0	1.4	-3.8	1.6	1.49	-0.35	-87.48
454.0	1.10	273.90	454.0	1.5	-4.4	1.9	0.71	0.67	14.67
485.0	1.50	266.10	485.0	1.4	-5.1	2.4	1.41	1.29	-25.16
516.0	1.80	249.80	515.9	1.3	-5.9	3.2	1.79	0.97	-52.58
546.0	1.80	251.40	545.9	0.9	-6.8	4.0	0.17	0.00	5.33
576.0	1.90	233.30	575.9	0.5	-7.7	4.9	1.97	0.33	-60.33
607.0	2.10	231.20	606.9	-0.2	-8.5	6.0	0.69	0.65	-6.77
638.0	2.50	226.70	637.9	-1.0	-9.4	7.2	1.41	1.29	-14.52
668.0	2.80	226.90	667.8	-1.9	-10.5	8.6	1.00	1.00	0.67



Survey Report



Company:

NEWFIELD EXPLORATION

Project:

USGS Myton SW (UT)

Site: Well:

SECTION 36 T8S, R16E E-36-8-16

Actual

Wellbore: Design: Wellbore #1

Local Co-ordinate Reference:

Well E-36-8-16

TVD Reference:

E-36-8-16 @ 5426.0ft (NEWFIELD RIG)

MD Reference:

E-36-8-16 @ 5426.0ft (NEWFIELD RIG)

North Reference: Survey Calculation Method:

Minimum Curvature

Database:

Measured			Vertical			Vertical	Dogleg	Build	Turn
Depth (ft)	Inclination (°)	Azimuth (°)	Depth (ft)	+N/-S (ft)	+E/-W (ft)	Section (ft)	Rate (°/100ft)	Rate (°/100ft)	Rate (°/100ft)
			* *					•	
698.0	3.10	227.40	697.8	-3.0	-11.6	10.1	1.00	1.00	1.6
729.0	3.40	229.60	728.8	-4.2	-12.9	11.9	1.05	0.97	7.10
759.0	4.00	229.20	758.7	-5.4	-14.4	13.8	2.00	2.00	-1.3
790.0	4.50	224.90	789.6	-7.0	-16.1	16.1	1.91	1.61	-13.8
820.0	5.10	222.70	819.5	-8.8	-17.8	18.6	2.09	2.00	-7.3
851.0	5.40	222.70	850.4	-10.9	-19.7	21.5	0.97	0.97	0.0
883.0	5.70	221.60	882.2	-13.2	-21.8	24.6	0.99	0.94	-3.4
						27.8	1.90	1.61	-9.6
914.0	6.20	218.60 220.20	913.1 944.8	-15.6 -18.4	-23.9 -26.1	31.3	1.66	1.56	5.00
946.0	6.70 7.30	224.70	9 <del>44</del> .6 976.6	-10.4	-28.8	35.2	2.54	1.88	14.00
978.0	8.10	225.80	1,008.3	-24.3	-31.8	39.5	2.54	2.50	3.44
1,010.0		223.20	1,008.3	-24.5 -27.5	-31.0 -35.0	44.1	2.57	2.26	-8.39
1,041.0	8.80								
1,073.0	9.10	221.30	1,070.6	-31.2	-38.4	49.1	1.32	0.94	-5.9
1,105.0	9.60	220.90	1,102.2	-35.2	-41.8	54.3	1.58	1.56	-1.2
1,137.0	10.10	222.60	1,133.7	-39.2	-45.4	59.7	1.81	1.56	5.3
1,168.0	10.60	224.70	1,164.2	-43.3	-49.3	65.3	2.02	1.61	6.7
1,200.0	11.30	223.70	1,195.6	-47.6	-53.5	71.4	2.27	2.19	-3.1
1,231.0	11.70	221.20	1,226.0	-52.2	-57.7	77.6	2.06	1.29	-8.00
1,263.0	12.03	222.94	1,257.3	-57.1	-62.1	84.1	1.52	1.03	5.4
1,295.0	12.00	221.10	1,288.6	-62.0	-66.5	90.8	1.20	-0.09	-5.7
1,326.0	12.40	220.90	1,318.9	-67.0	-70.8	97.3	1.30	1.29	-0.6
1,358.0	12.45	221.19	1,350.2	-72.1	-75.4	104.2	0.25	0.16	0.9
					70.0	444.0		0.59	-1.2
1,390.0	12.64	220.80	1,381.4	-77.4	-79.9	111.2	0.65	0.39	-1.2. -1.6
1,421.0	12.74	220.30	1,411.6	-82.6	-84.3	118.0	0.48	-0.38	2.7
1,453.0	12.62	221.19	1,442.9	-87.9	-88.9	125.0 132.0	0.72 0.95	-0.56 0.56	3.4
1,485.0	12.80	222.30	1,474.1	-93.1 -98.2	-93.6 -98.4	132.0	1.55	0.30	5.9
1,516.0	13.05	224.13	1,504.3						
1,548.0	13.10	223.60	1,535.5	-103.4	-103.4	146.2	0.41	0.16	-1.6
1,580.0	12.57	222.04	1,566.7	-108.6	-108.2	153.3	1.98	-1.66	-4.88
1,612.0	12.61	222.00	1,597.9	-113.8	-112.9	160.3	0.13	0.13	-0.1
1,644.0	12.40	221.70	1,629.1	-119.0	-117.5	167.2	0.69	-0.66	-0.94
1,675.0	12.35	223.14	1,659.4	-123.9	-122.0	173.8	1.01	-0.16	4.65
1,707.0	12.13	223.10	1,690.7	-128.8	-126.6	180.6	0.69	-0.69	-0.1
1,738.0	11.95	222.40	1,721.0	-133.6	-131.0	187.1	0.75	-0.58	-2.2
1,770.0	11.82	222.80	1,752.3	-138.4	-135.5	193.7	0.48	-0.41	1.2
1,802.0	11.60	222.50	1,783.6	-143.2	-139.9	200.2	0.71	-0.69	-0.9
1,833.0	11.60	220.70	1,814.0	-147.9	-144.0	206.4	1.17	0.00	-5.8
						212.7	0.95	-0.94	0.6
1,865.0	11.30	220.90 220.40	1,845.4 1,876.8	-152.7 -157.4	-148.2 -152.2	212.7	0.95 0.44	-0.9 <del>4</del> -0.31	-1.50
1,897.0	11.20 10.60	220.40	1,876.8 1,907.2	-157.4 -161.8	-152.2 -156.1	219.0	2.54	-0.31 -1.94	8.7
1,928.0	10.50	225.00	1,907.2	-166.0	-156.1 -160.2	230.7	1.13	-1.94 -0.31	5. <i>1</i>
1,960.0	10.50	225.40	1,936.7	-170.1	-160.2	236.5	0.39	0.31	1.2
1,992.0									
2,023.0	11.00	225.00	2,000.6	-174.2	-168.5	242.3	1.31	1.29	-1.2
2,055.0	11.30	224.90	2,032.0	-178.6	-172.8	248.5	0.94	0.94	-0.3
2,087.0	11.30	222.40	2,063.3	-183.1	-177.2	254.8	1.53	0.00	-7.8
2,118.0	11.10	223.80	2,093.8	-187.5	-181.3	260.8	1.09	-0.65	4.5
2,150.0	11.00	224.20	2,125.2	-191.9	-185.5	267.0	0.39	-0.31	1.2
2,182.0	11.30	223.40	2,156.6	-196.4	-189.8	273.1	1.05	0.94	-2.5
2,213.0	11.30	223.10	2,187.0	-200.8	-194.0	279.2	0.19	0.00	-0.9
2,245.0	11.00	224.90	2,218.4	-205.3	-198.3	285.4	1.44	-0.94	5.63
2,277.0	11.10	226.00	2,249.8	-209.6	-202.7	291.5	0.73	0.31	3.4
2,308.0	11.30	225.70	2,280.2	-213.8	-207.0	297.5	0.67	0.65	-0.9
2,339.0	11.60	224.30	2,310.6	-218.1 -222.8	-211.3 -215.9	303.7	1.32 0.98	0.97	-4.52



Survey Report



Company:

**NEWFIELD EXPLORATION** 

Project:

USGS Myton SW (UT) SECTION 36 T8S, R16E

Site: Well:

E-36-8-16

Wellbore: Design: Wellbore #1 Actual Local Co-ordinate Reference:

Well E-36-8-16

TVD Reference:

E-36-8-16 @ 5426.0ft (NEWFIELD RIG)

MD Reference:

E-36-8-16 @ 5426.0ft (NEWFIELD RIG)

North Reference:

True

**Survey Calculation Method:** 

Database:

Minimum Curvature

			Martherit			Varia-I	Dooles	Duite	T
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Vertical Section	Dogleg Rate	Build Rate	Turn Rate
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	(°/100ft)	(°/100ft)
2,403.0	12.17	225.12	2,373.2	-227.5	-220.6	316.9	0.89	0.81	1.78
2,434.0	12.10	226.10	2,403.5	-232.1	-225.3	323.4	0.70	-0.23	3.16
2,466.0	11.90	226.70	2,434.8	-236.7	-230.1	330.0	0.74	-0.63	1.88
•									
2,497.0	11.80	225.50	2,465.1	-241.1	-234.7	336.4	0.86	-0.32	-3.87
2,529.0	11.70	222.60	2,496.5	-245.8	-239.2	342.9	1.87	-0.31	-9.06
2,560.0	11.80	222.35	2,526.8	-250.4	-243.5	349.2	0.36	0.32	-0.81
2,592.0	12.00	223.50	2,558.1	-255.2	-247.9	355.8	0.97	0.63	3.59
2,624.0	12.30	223.70	2,589.4	-260.1	-252.6	362.6	0.95	0.94	0.63
2,656.0	12.10	222.00	2,620.7	-265.1	-257.2	369.3	1.28	-0.63	-5,31
2,687.0	12.00	220.70	2,651.0	-269.9	-261.5	375.8	0.93	-0.32	-4.19
2,719.0	12.00	221.30	2,682.3	-275.0	-265.8	382.4	0.39	0.00	1.88
·				-279.8	-269.9	388.8	1.85	-1.29	-6.45
2,750.0	11.60	219.30 214.90	2,712.6 2,744.0	-279.0 -284.9	-209.9 -273.8	395.1	2.81	-0.63	-13.75
2,782.0	11.40	214.90		-204.9					
2,814.0	11.30	216.50	2,775.4	-290.0	-277.5	401.3	1.03	-0.31	5.00
2,846.0	10.90	215.00	2,806.8	-295.0	-281.1	407.4	1.54	-1.25	-4.69
2,877.0	10.94	216.00	2,837.2	-299.8	-284.5	413.3	0.62	0.13	3.23
2,909.0	11.00	213.30	2,868.6	-304.8	-287.9	419.3	1.62	0.19	-8.44
2,941.0	11.30	212.80	2,900.0	-310.0	-291.3	425.4	0.98	0.94	-1.56
2,972.0	11.50	214.80	2,930.4	-315.1	-294.7	431.4	1.43	0.65	6.45
3,004.0	11.80	216.90	2,961.8	-320.3	-298.5	437.8	1.62	0.94	6.56
•		218.80	2,993.1	-325.5	-302.5	444.4	1.37	0.63	5.94
3,036.0	12.00			-320.3	-306.8	450.9	2.52	0.65	11.61
3,067.0	12.20 12.30	222.40 224.30	3,023.4 3,054.7	-335.4	-311.4	450.9 457.6	1.30	0.31	5.94
3,099.0	12.30	224.30	3,034.7			437.0	1.50		
3,131.0	12.60	225.30	3,085.9	-340.3	-316.3	464.5	1.15	0.94	3.13
3,162.0	12.79	227.30	3,116.1	-345.0	-321.2	471.3	1.54	0.61	6.45
3,194.0	12.60	227.30	3,147.4	-349.7	-326.4	478.4	0.59	-0.59	0.00
3,226.0	12.30	225.40	3,178.6	-354.5	-331.4	485.2	1.59	-0.94	-5.94
3,258.0	12.10	227.00	3,209.9	~359.2	-336.3	492.0	1.23	-0.63	5.00
3,290.0	12.10	227.80	3,241.2	-363.7	-341.2	498.7	0.52	0.00	2.50
3,322.0	11.87	227.70	3,272.5	-368.2	-346.1	505.3	0.72	-0.72	-0.31
3,353.0	11.20	227.60	3,302.8	-372.4	-350.7	511.5	2.16	-2.16	-0.32
				-372. <del>4</del> -376.4	-355.0	517.4	3.16	-3.00	-5.31
3,385.0	10.24 10.20	225.90 226.00	3,334.3 3,365.8	-376.4 -380.4	-355.0 -3 <b>5</b> 9.1	517.4 523.1	0.14	-0.13	0.31
3,417.0	10.20	226.00	3,363.6	-300.4	-339.1	323.1		-0.13	0.51
3,448.0	10.40	227.30	3,396.3	-384.2	-363.1	528.7	0.99	0.65	4.19
3,480.0	10.60	228.30	3,427.7	-388.1	-367.5	534.5	0.85	0.63	3.13
3,512.0	11.10	228.00	3,459.2	-392.1	-372.0	540.5	1.57	1.56	-0.94
3,543.0	11.40	227.80	3,489.6	-396.2	-376.4	546.5	0.98	0.97	-0.65
3,575.0	11.30	225.20	3,521.0	-400.5	-381.0	552.8	1.63	-0.31	-8.13
3,606.0	11.20	223.40	3,551.4	-404.8	-385.2	558.8	1.18	-0.32	-5.81
		223.40 223.40	3,582.7	-404.6 -409.4	-365.2 -389.5	565.1	0.31	0.31	0.00
3,638.0	11.30				-369.5 -393.8	571.4	0.43	0.00	-2.19
3,670.0	11.30	222.70	3,614.1	-414.0					
3,702.0	11.30	224.60	3,645.5	-418.5	-398.1	577.6 584.0	1.16	0.00	5.94 4.38
3,734.0	11.60	226.00	3,676.9	-423.0	-402.6	584.0	1.28	0.94	4.30
3,765.0	11.40	226.90	3,707.2	-427.2	-407.1	590.1	0.87	-0.65	2.90
3,797.0	11.10	226.30	3,738.6	-431.5	-411.7	596.4	1.01	-0.94	-1.88
3,829.0	11.00	225.60	3,770.0	-435.8	-416.1	602.5	0.52	-0.31	-2.19
3,861.0	11.00	223.90	3,801.4	-440.1	-420.4	608.6	1.01	0.00	-5.31
3,892.0	11.30	224.80	3,831.9	-444.4	-424.6	614.6	1.12	0.97	2.90
3,924.0	11.60	224.10	3,863.2	-448.9	-429.0	621.0	1.03	0.94	-2.19
3,956.0	11.70	222.00	3,894.6	-453.7	-433.4	627.4	1.36	0.31	-6.56
3,987.0	11.80	223.20	3,924.9	-458.3	-437.7	633.7	0.85	0.32	3.87
4,019.0	11.90	221.80	3,956.2	-463.1	-442.1	640.3	0.95	0.31	-4.38
4,051.0	11.70	220.30	3,987.6	-468.1	-446.4	646.8	1.14	-0.63	-4.69
4,082.0	11.43	220.07	4,017.9	-472.8	-450.4	653.0	0.88	-0.87	-0.74



Survey Report

Company:

NEWFIELD EXPLORATION

Project: Site:

USGS Myton SW (UT) SECTION 36 T8S, R16E

Well: Wellbore: E-36-8-16

Actual

Design:

Wellbore #1

Local Co-ordinate Reference:

Well E-36-8-16

TVD Reference:

North Reference:

E-36-8-16 @ 5426.0ft (NEWFIELD RIG) E-36-8-16 @ 5426.0ft (NEWFIELD RIG)

MD Reference:

**Survey Calculation Method:** 

Database:

Minimum Curvature

Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Vertical Section	Dogleg Rate	Build Rate	Turn Rate
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	(°/100ft)	(°/100ft)
4,114.0	11.70	221.20	4.049.3	-477.7	-454.6	659.4	1.10	0,84	3.53
4,146.0	12.20	223.70	4,080.6	-482.6	-459.1	666.1	2.25	1.56	7.81
4,177.0	12.20	225.00	4,110.9	-487.3	-463.7	672.6	0.89	0.00	4.19
4,209.0	12.00	225.50	4,142.2	-492.0	-468.4	679.3	0.71	-0.63	1.56
4,209.0	12.00	225.50	7, 172.2						
4,241.0	12.00	223.90	4,173.5	-496.7	-473.1	686.0	1.04	0.00	-5.00
4,272.0	12.10	223.80	4,203.8	-501.4	-477.6	692.4	0.33	0.32	-0.32
4,304.0	12.20	222.70	4,235.1	-506.3	-482.2	699.2	0.79	0.31	-3.44
4,336.0	12.10	220.60	4,266.4	-511.3	-486.7	705.9	1.42	-0.31	-6.56
4,368.0	11.80	222.70	4,297.7	-516.3	-491.1	712.5	1.65	-0.94	6.56
4,399.0	11.40	223.80	4,328.0	-520.8	-495.4	718.8	1.47	-1.29	3.55
4,431.0	10.80	224.40	4,359.4	-525.2	-499.6	724.9	1.91	-1.88	1.88
	10.20	224.40	4,390.9	-529.4	-503.7	730.8	1.88	-1.88	0.00
4,463.0	9.80	223.40	4,390.9 4,421.4	-529.4 -533.3	-503.7 -507.5	736.1	1.41	-1.29	-3.23
4,494.0 4,526.0	9.80	223.40	4,421.4 4,453.0	-535.3 -537.2	-507.5 -511.2	741.6	0.16	0.00	-0.94
4,558.0	10.10	222.50	4,484.5	-541.3	-514.9	747.1	0.99	0.94	-1.88
4,589.0	10.40	221.10	4,515.0	-545.4	-518.6	752.6	1.26	0.97	-4.52
4,621.0	10.50	222.50	4,546.5	-549.7 <del></del>	-522.5	758.4	0.85	0.31	4.38
4,653.0	10.80	223.00	4,577.9	-554.1	-526.5	764.3	0.98	0.94	1.56
4,685.0	10.90	222.80	4,609.3	-558.5	-530.6	770.4	0.33	0.31	-0.63
4,716.0	10.81	223.14	4,639.8	-562.8	-534.6	776.2	0.36	-0.29	1.10
4,748.0	10.80	223.50	4,671.2	-567.1	-538.7	782.2	0.21	-0.03	1.13
4,780.0	11.00	223.50	4,702.6	-571.5	-542.9	788.2	0.63	0.63	0.00
4,812.0	11.30	221.60	4,734.0	-576.1	-547.0	794.4	1.48	0.94	-5.94
4,843.0	11.60	221.90	4,764.4	-580.7	-551.1	800.6	0.99	0.97	0.97
4,875.0	11.70	220.90	4,795.8	-585.5	-555.4	807.0	0.70	0.31	-3.13
4,907.0	11.80	219.80	4,827.1	-590.5	-559.6	813.6	0.77	0.31	-3.44
4,938.0	12.00	220.90	4,857.4	-595.4	-563.8	819.9	0.98	0.65	3.55
4,970.0	12.30	220.90	4,888.7	-600.4	-568.2	826.7	0.94	0.94	0.00
5,002.0	12.40	221.30	4,920.0	-605.6	-572.7	833.5	0.41	0.31	1.25
5,034.0	12.00	222.40	4,951.2	-610.6	-577.2	840.3	1.45	-1.25	3.44
5,066.0	11.80	221.50	4,982.5	-615.6	-581.6	846.9	0.85	-0.63	-2.81
5,098.0	12.00	220.40	5,013.9	-620.5	-585.9	853.4	0.94	0.63	-3.44
5,130.0	11.80	221.48	5,045.2	-625.5	-590.3	860.0	0.94	-0.63	3.38
5,163.0	11.80	221.48	5,077.5	-630.6	-594.7	866.8	0.00	0.00	0.00
5,194.0	11.30	220.50	5,107.8	-635.3	-598.8	873.0	1.73	-1.61	-3.16
5,194.0	10.80	218.90	5,139.3	-640.0	-602.7	879.1	1.83	-1.56	-5.00
5,258.0	11.30	219.80	5,170.7	-644.7	-606.6	885.2	1.65	1.56	2.81
5,289.0	11.40	220.99	5,201.1	-649.4	-610.6	891.3	0.82	0.32	3.84
5,321.0	11.50	222.30	5,232.4	-654.1	-614.8	897.7	0.87	0.31	4.09
5,352.0	11.10	223.80	5,262.8	-658.6	-618.9	903.7	1.60	-1.29	4.84
5,384.0	10.60	225.80	5,294.2	-662.8	-623.2	909.8	1.96	-1.56	6.25
5,386.5	10.57	225.93	5,296.7	-663.1	-623.5	910.2	1.63	-1.30	5.29
E-36-8-16 TG									
5,415.0	10.20	227.50	5,324.7	-666.7	-627.2	915.3	1.63	-1.29	5.50
5,447.0	10.40	224.30	5,356.2	-670.6	-631.3	921.1	1.89	0.63	-10.00
5,479.0	10.50	221.20	5,387.7	-674.9	-635.3	926.9	1.78	0.31	-9.69
5,511.0	10.50	221.40	5,419.2	-679.3	-639.1	932.7	0.11	0.00	0.63
5,543.0	10.60	221.70	5,450.6	-683.7	-643.0	938.5	0.36	0.31	0.94
5,574.0	10.70	224.00	5,481.1	-687.9	-646.9	944.3	1.41	0.32	7.42
5,606.0	10.80	226.00	5,512.5	-692.1	-651.1	950.2	1.21	0.31	6.25
5,638.0	10.80	227.10	5,543.9	-696.2	-655.5	956.2	0.64	0.00	3.44
5,669.0	10.90	227.60	5,574.4	-700.2	-659.8	962.0	0.44	0.32	1.61
5,701.0	11.30	227.00	5,605.8	-704.4 -708.8	-664.3 -668.9	968.2 974.5	1.30 1.41	1.25 0.94	-1.88 -5.31



TVD Reference:

MD Reference:

Survey Report

Company:

NEWFIELD EXPLORATION

Project:

USGS Myton SW (UT) SECTION 36 T8S, R16E

Site: Well:

E-36-8-16

Wellbore:

Wellbore #1

Design:

Actual

Local Co-ordinate Reference:

Well E-36-8-16 E-36-8-16 @ 5426.0ft (NEWFIELD RIG)

E-36-8-16 @ 5426.0ft (NEWFIELD RIG)

North Reference:

**Survey Calculation Method:** Minimum Curvature

Database:

Measured			Vertical			Vertical	Dogleg	Build	Turn
Depth	Inclination	Azimuth	Depth	+N/-S	+E/-W	Section	Rate	Rate	Rate
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	(°/100ft)	(°/100ft)
5,765.0	11.70	225.40	5,668.5	-713.3	-673.5	981.0	0.32	0.31	0.31
5,796.0	11.80	225.30	5,698.8	-717.7	-678.0	987.3	0.33	0.32	-0.32
5,828.0	11.60	224.20	5,730.2	-722.3	-682.5	993.8	0.94	-0.63	-3.44
5,860.0	11.40	223.80	5,761.5	-726.9	-687.0	1,000.2	0.67	-0.63	-1.25
5,892.0	11.56	223.05	5,792.9	-731.6	-691.3	1,006.5	0.68	0.50	-2.34
5,923.0	11.50	222.30	5,823.3	-736.1	-695.5	1,012.7	0.52	-0.19	-2.42
5,955.0	11.70	221.60	5,854.6	-740.9	-699.8	1,019.2	0.76	0.63	<del>-</del> 2.19
5,987.0	11.80	221.80	5,886.0	-745.8	-704.2	1,025.7	0.34	0.31	0.63
6,018.0	11.80	223.30	5,916.3	-750.4	-708.5	1,032.0	0.99	0.00	4.84
6,050.0	11.90	223.00	5,947.6	-755.2	-713.0	1,038.6	0.37	0.31	-0.94
6,082.0	11.90	222.70	5,978.9	-760.1	-717.4	1,045.2	0.19	0.00	-0.94
6,113.0	12.20	223.70	6,009.2	-764.8	-721.9	1,051.7	1.18	0.97	3.23
6,145.0	12.40	224.20	6,040.5	-769.7	-726.6	1,058.5	0.71	0.63	1.56
6,177.0	12.20	223.80	6,071.8	-774.6	-731.3	1,065.3	0.68	-0.63	-1.25
6,208.0	12.00	223.70	6,102.1	-779.3	-735.8	1,071.8	0.65	-0.65	-0.32
6,240.0	11.70	224.60	6,133.4	-784.0	-740.4	1,078.4	1.10	-0.94	2.81
6,272.0	11.70	224.00	6,164.7	-788.6	-744.9	1,084.8	0.38	0.00	-1.88
6,303.0	11.60	224.90	6,195.1	-793.1	-749.3	1,091.1	0.67	-0.32	2.90
6,335.0	11.16	225.34	6,226.5	-797.6	-753.8	1,097.4	1.40	-1.38	1.38
6,367.0	10.80	225.30	6,257.9	-801.9	-758.1	1,103.5	1.13	-1.13	-0.13
6,399.0	10.54	224.35	6,289.3	-806.1	-762.3	1,109.4	0.98	-0.81	-2.97
6,430.0	10.15	225.30	6,319.8	-810.0	-766.2	1,115.0	1.37	-1.26	3.06
6,462.0	9.76	223.71	6,351.3	-813.9	-770.1	1,120.5	1.49	-1.22	-4.97
6,493.0	9.32	223.93	6,381.9	-817.7	-773.7	1,125.7	1.42	-1.42	0.71
6,525.0	8.99	223.33	6,413.5	-821.3	-777.2	1,130.8	1.07	-1.03	-1.88
6,556.0	8.70	224.29	6,444.1	-824.8	-780.5	1,135.5	1.05	-0.94	3.10
6,587.0	8.60	224.10	6,474.8	-828.1	-783.7	1,140.2	0.34	-0.32	-0.61
6,639.0	8.60	224.10	6,526.2		-789.2	1,148.0	0.00	0.00	0.00

Wellbore Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
E-36-8-16 TGT - actual wellpath mi - Circle (radius 75.0	•	0.00 at 5386.4ft M	5,300.0 D (5296.6 T	-646.4 VD, -663.1 <b>N</b> ,	-614.5 -623.5 E)	7,201,604.39	2,038,521.08	40° 4' 53.671 N	110° 4' 37.706 W

Checked By:	Approved By:	Date:	



Project: USGS Myton SW (UT) Site: SECTION 36 T8S, R16E

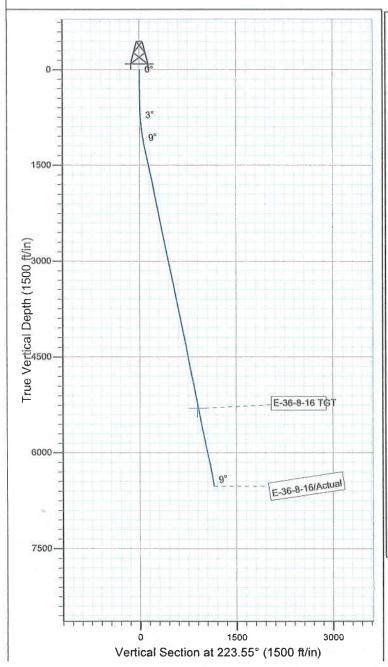
Well: E-36-8-16 Wellbore: Wellbore #1 SURVEY: Actual

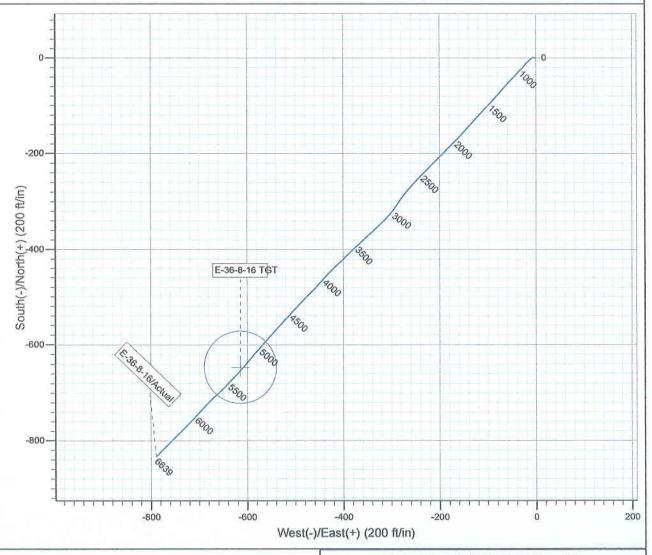
**FINAL SURVEY REPORT** 



Azimuths to True North Magnetic North: 11.52°

Magnetic Field Strength: 52485.9snT Dip Angle: 65.88° Date: 2009/10/14 Model: IGRF200510







Design: Actual (E-36-8-16/Wellbore #1)

Created By: Sim hudson Date: 7:43, March 28 2011
THIS SURVEY IS CORRECT TO THE BEST OF MY
KNOWLEDGE AND IS SUPPORTED BY ACTUAL FIELD DATA.

### **Daily Activity Report**

### Format For Sundry GRTR MB E-36-8-16 12/1/2010 To 4/28/2011

### **GRTR MB E-36-8-16**

**Date:** 1/20/2011

**Waiting on Cement** 

Ross #29 at 310. Days Since Spud - On 1/18/11 Ross # 29 Spud the Greater Monument Butte E-36-8-16, Drilled 310' of 12 1/4" hole, and - Returned 5bbls to pit. - Cemented 8 5/8" Casing W/ 160sks Class "G"+2%CaCl+.25#skCelloflake Mixed @ 15.8ppg W/1.17 yield - ran 7jts 8 5/8" casing ( Guide Shoe, Shoe Joint, Baffle Plate, 6jts ) set @ 311.35'KB. On 1/20/11 BJ

Daily Cost: \$0

**Cumulative Cost:** \$45,917

### **GRTR MB E-36-8-16**

Rigging Up

**Date:** 2/27/2011

NDSI #2 at 310. 0 Days Since Spud - Clean Mud Pits And Water Tank With Hot Water. - 2/26/11 MIRU ON GMB E-36-8-16.Set SurFace With Marcus Liddell Trucking . ( Move 15' From D-36-8-16 ) - Drain Water From Resserve Pit. To Install New Liner.

Daily Cost: \$0

Cumulative Cost: \$68,034

### **GRTR MB E-36-8-16**

Drill 7 7/8" hole with fresh water

**Date:** 2/28/2011

NDSI #2 at 1422. 1 Days Since Spud - P/U BHA as follows,Smith Mi 616 7 7/8" PDC Bit,Hunting 7/8,4.8 stage .33 rev 1.5 deg fix Mud Motor, - 1x30'NM Monel,1x3.3' Double Gap Sub,1x2' Index Sub,1x5 NM Pony,26 HWDP. Tag @ 270' - Fill Reserve Pit With Fresh Water ( Patch Holes In Mud Pits ) - Drill 7 7/8" Hole From 270' To 1422' WOB 15,000 lbs,TRPM 168,GPM 344,AVG ROP 135,5 fph - Trip Out Of Hole To HWDP - Wait On Electrician. ( Reset Breaker Sparks Shot Of Breaker Box) - No H2s Reported Last 24 Hrs - Boiler 14 Hrs. - Last Survey MD1358' Angle Deg.12.45,Drift Dir 221.19,TVD 1350'Sogleg Severity .25 - everything tested OK. - Pipe Rams,Choke Lione and Manifold to 2000# psi for 10 mins,Test 8 5/8 Casing to 1500# psi for30 min - Install New Pit Liner,Finish Rigging Up,Fill Pit With Fresh Water. - Accepet Rig onn2/27/11 @ 12:00 pm. R/U B&C Quick Test,Test Upper Kelly Valve,Safety Valve,Blind,

Daily Cost: \$0

Cumulative Cost: \$105,554

### **GRTR MB E-36-8-16**

Drill 7 7/8" hole with fresh water

**Date:** 3/1/2011

NDSI #2 at 3595. 2 Days Since Spud - Trip in Hole - Drill 7 7/8" Hole From 1420' To 1822', WOB 15,000 bs, TRPM 168, GPM 344, AVG ROP 134 fph - Rig Service, Check Crowm-A-Matic, Function Test Pipe Rams. - Drill 7 7/8" Hole From 1822' To 3595' WOB 20,000 lbs, TRPM 168, GPM 344, AVG ROP 107.4 fph - No H2s reported Last 24 hrs - No Flow @ 3595' - Boiler 24 hrs - Wait On Electritian To Fix Breaker and Plug in On Charge Pump.

Daily Cost: \$0

Cumulative Cost: \$131,367

### **GRTR MB E-36-8-16**

Drill 7 7/8" hole with fresh water

**Date:** 3/2/2011

NDSI #2 at 4767. 3 Days Since Spud - Boiler 24 Hrs - Drill 7 7/8" Hole From 4490' To 4767',

TOOH

WOB 20,000 lbs, TRPM 168, GPM 399, AVG ROP 61.5 fph - Trip In Hole With Bit #2 - Started Mud Up @ 4500' - No Flow @ 4767' - No H2s Reported Last 24 Hrs - Drill 7 7/8" Hole From 3595' To 4451', WOB 20,000, TRPM 168, GPM 399, AVG ROP 71.3 fph. - Rig Service Check Crown-A-Matic, Function Test Bop's - Drill 7 7/8" Hole From 4451 To 4490' WOB 20,000 lbs, TRPM 168, GPM 399, AVG ROP 39 fph - Build and Pump Slug - Change Out Bit and Motor - Trip Out For Bit & Mud Motor

Daily Cost: \$0

Cumulative Cost: \$166,106

### **GRTR MB E-36-8-16**

### Drill 7 7/8" hole with fresh water

**Date:** 3/3/2011

NDSI #2 at 5089. 4 Days Since Spud - Boiler 24 Hrs. - No H2s Reported Last 24 Hrs - Trip Out Hole W/ Coring Tools - Circ Bottoms Up - Core Drill From 5029' To 5089' - Circ Hole - Trip In Hole With Coring Tools - P/U Coring Tools - Trip Out Hole For Coring Tools - Circ & Cond Mud - Drill 7 7/8" Hole From 4767' To 5029' WOB 20,000 lbs,TRPM 168,GPM 402,AVG ROP 74.8 fph (1st Core Pt - Laydown Cores. (Retrived 56.6' Core.)

Daily Cost: \$0

Cumulative Cost: \$233,488

GRTR MB E-36-8-16

**Date:** 3/4/2011

NDSI #2 at 5242. 5 Days Since Spud - Trip out of hole - Circulate - Core from 5182' to 5242' - Circulate bottom up - Wash and ream 27' to bottom. No fill - P/U core tools and trip in hole. Fill at 2500' - Lay down cores. - Circulate bottoms up - Drill 7 7/8" Hole From 5089' To 5182' WOB 15,000 lbs,TRPM 168,GPM 402,AVG ROP 47 fph (2nd Core Pt) - Gain circulation and wash 87' to bottom. No fill - Trip in hole - Lay down 56' of core and tools. - Trip out of hole

Daily Cost: \$0

**Cumulative Cost:** \$279,628

GRTR MB E-36-8-16 TOOH

**Date:** 3/5/2011

NDSI #2 at 5379. 6 Days Since Spud - Lay down cores. Retrieved 60.6' of core - P/U drill bit and directional tools and trip in hole - Gain circulation and was 54' to bottom. (no fill) - Drill 7 7/8" Hole From 5242' To 5347' WOB 15,000 lbs,TRPM 168,GPM 402,AVG ROP 47 fph (3rd Core Pt) - Circulate - Trip out of hole - P/U core tools and trip in hole - Circulate - Cut 32' of core. Core tool probably jamed - Circulate - Trip out.

Daily Cost: \$0

Cumulative Cost: \$319,985

### **GRTR MB E-36-8-16**

### Drill 7 7/8" hole with mud

**Date:** 3/6/2011

NDSI #2 at 5752. 7 Days Since Spud - Trip out and lay down core tools. - Circulate - Drill 7 7/8" Hole From 5347' To 5752' WOB 15,000 lbs,TRPM 168,GPM 402,AVG ROP 54 fph - Core 5379' to 5410' - Cut 72' of drilling and replace 72'. - Trip in hole. - Trip in hole with mud motor and PDC drill bit - Lay down core tools and pick up BHA. - Trip out of hole - Gain circulation and wash 41' to bottom (No fill)

Daily Cost: \$0

**Cumulative Cost:** \$376,221

**GRTR MB E-36-8-16** 

**Date:** 3/7/2011

Drill 7 7/8" hole with mud

NDSI #2 at 6639. 8 Days Since Spud - Drill 7 7/8" Hole From 5752' To 6037' WOB 15,000 lbs,TRPM 168,GPM 402,AVG ROP 47.5 fph - Rig service - Replace fuse to murphy switch panel on floor engine - Drill 7 7/8" Hole From 6417' To 6449' WOB 15,000 lbs,TRPM 168,GPM 402,AVG ROP 47.5 fph - Replace input change on drawworks - Drill 7 7/8" Hole From 6449' To 6635' WOB 15,000 lbs,TRPM 168,GPM 402,AVG ROP 47.5 fph - Drill 7 7/8" Hole From 6037' To 6417' WOB 15,000 lbs,TRPM 168,GPM 402,AVG ROP 47.5 fph

Daily Cost: \$0

Cumulative Cost: \$398,946

### **GRTR MB E-36-8-16**

**TOOH** 

**Date:** 3/8/2011

NDSI #2 at 6639. 9 Days Since Spud - Log well w/ Halliburton. Tripple combo suite. Then pick up EMRIL tool. Hit bridge at 1350'. Could - Trip out of hole - Circulate - not work through. Pull tool. - Trip in hole - Rig down the EMRIL tool

Daily Cost: \$0

Cumulative Cost: \$434,943

### **GRTR MB E-36-8-16**

Logging

**Date:** 3/9/2011

NDSI #2 at 6639. 10 Days Since Spud - Rig up Halliburton and the EMRIL tool. Currently logging down at 5700' 3 min/foot. - Circulate and condition mud. - Trip in for a wiper run. Tag at 3830'. Ream 3830' to 3921'. Continu e to TIH to bottom - Trip out of hole.

Daily Cost: \$0

**Cumulative Cost:** \$461,772

### **GRTR MB E-36-8-16**

TOOH

**Date:** 3/10/2011

NDSI #2 at 6639. 11 Days Since Spud - Circulate and condition mud - Trip in hole. - Ream 3962 to 4052" - Trip in to 3962' - Repair input chain - Trip in hole - Log well with the MRIL 2.5'/min - Trip out of hole

Daily Cost: \$0

Cumulative Cost: \$476,278

### **GRTR MB E-36-8-16**

Logging

**Date:** 3/11/2011

NDSI #2 at 6639. 12 Days Since Spud - TOOH, for logs, to hole problems - NO H2S or flow reported in last 24 hours - log w/ Halliburton , descent 3 HFDT, and 4 XRMI/Wave Sonic , currently on RDT Descent

Daily Cost: \$0

**Cumulative Cost:** \$490,691

### **GRTR MB E-36-8-16**

Logging

**Date:** 3/12/2011

NDSI #2 at 6639. 13 Days Since Spud - Do rotary sidewall cores w/ Halliburton, currently on bank checking core count. - No H2S or flow in last 24 hours

Daily Cost: \$0

Cumulative Cost: \$528,925

### **GRTR MB E-36-8-16**

**Wait on Completion** 

**Date:** 3/13/2011

NDSI #2 at 6639. 14 Days Since Spud - Rig up Casing crew and run 154 jts of 5.5" casing set @ 6606.47' - rig up B&C Quicktest and test 5.5" rams to 2000# - Rig floor down to run casing and change rams - Lay down drill pipe and BHA - Circulate gas out and condition mud - Trip in Hole, soft fill 15' - Cement w/ 300 sks of lead (PL II+.05#SF+3%KCL+.5#CF+2#Kol seal) @ 11ppg and 3.53 yield and 400 sks - of tail (50:50:2+.05#SF+3%KCL+.5%EC-1+.25#CF) @ 14.4ppg and 1.24 yield, displace w/ 156.2 bbls of - fresh returned 33 bbls cement to pit, bump plug to 1980 psi. - Nipple down and set slips w/ 105,000# tension - Clean mud tanks - Circulate and rig up BJ and hold safety meeting

Daily Cost: \$0

**Cumulative Cost:** \$911,789

### **GRTR MB E-36-8-16**

**Wait on Completion** 

**Date:** 3/14/2011

NDSI #2 at 6639. 15 Days Since Spud - Clean mud tanks - Release rig @ 07:30 am on 3-13-

11 Finalized Daily Cost: \$0

**Cumulative Cost:** \$913,253

Pertinent Files: Go to File List